THE NEW-YORK
JOURNAL OF MEDICINE.

FOR MARCH, 1849.

PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*Address to the Graduates of the College of Physicians and Surgeons of New-York, at the Commencement held March* 12, 1846. By JOHN B. BECK, M. D., Professor of Materia Medica and Medical Jurisprudence.

GENTLEMEN, GRADUATES,—The occasion on which we meet this evening, is one of deep interest. Having completed your various courses of study with credit to yourselves, and as your reward, having received the highest honors which it is in the power of this College to bestow, you are now about to leave us, and to become busy actors in the drama of human life. Although this is a period which has long been anticipated and wished for by you, the ties which bind you to us cannot be broken without emotion, and as you look forward, you find your bosoms swelling with mingled feelings of hope and fear. To those who have had the care of your instruction, it is no less an occasion of interest. They see issuing from these halls a large class of young men, associated in their minds with the most pleasing recollections of intelligence, industry and good conduct. Influenced as your minds and habits have necessarily been by their instructions and example, they cannot but feel a deep responsibility in your welfare, and their ardent prayer is, that your future career may be such as to do honor to yourselves and to this Institution. They hope to hear of you hereafter as successful and eminent physicians, and as honored men—elevating and improving the noble profession which you have chosen, and blessing society by your virtues.

Deputed by my colleagues to give you their parting counsel and advice, I feel oppressed with the crowd of ideas that flow in upon my mind. Like the anxious parent taking leave of his children, I feel as if I should like to touch upon every thing that relates to your future life. This, however, may not be, and fortunately is not necessary. In this institution you have been looked upon, not merely as the recipients of professional knowledge, but also as moral agents, destined to exert a wide influence, either for good or evil, on those around you, and your teachers

have not left it to the few brief moments that remain to us, to endeavor to infuse into your minds such feelings and principles as they trust, under Providence, may conduct you through life with honor and safety; and if your uniform behavior during your pupilage can give any just ground of hope, they do not doubt that their most sanguine expectations will be realized. My duty, therefore, at present is comparatively limited, and I shall content myself with throwing out a few suggestions of a general nature, which I trust may be useful to you. And first, and above all, let me beseech of you, not to consider, because you have gone through the round of study prescribed by this Institution, nor yet because you have received the degree of Doctor in Medicine, that your education is now completed. If you do, notwithstanding all the time and labor you have expended, you had better at once abandon the profession and undertake some different occupation. Valuable as lectures are, they are, nevertheless, to be looked upon by the student simply as the preliminary means by which he may be enabled to perfect himself afterwards in a knowledge of his profession. They are merely the guides to show him how he is to pursue the never-ending course of self-instruction which he ought to propose to himself. The instruction of others never can make a man a physician. That he must make himself—and to do it requires a kind of study and training very different from that of listening to the prelections of the lecture-room. When you leave, therefore, this seat of learning, consider that you are merely changing the mode of your studies, and that you are now beginning a new and higher course of instruction. If you are deeply imbued with this feeling, every case that may present itself when you get into practice, will afford you ample scope for the exercise of all your faculties. The practice of medicine is not a mere matter of routine. The same disease occurring in different individuals is modified by a thousand different circumstances. The age, sex, habits of life, season of the year, climate, all exercise a controlling influence over its character, and accordingly demand a modification of the treatment. Every case, therefore, should be studied by itself, and should be made the subject of profound thought and investigation. If you pursue this course, you will find not merely that the practice of your profession is one that requires incessant study, but that it is one of surpassing interest.

With regard to the modes of conducting your studies, so as to yield you the greatest amount of profit, let me suggest to you, in the first place, to lay it down as an invariable rule, that when you undertake the study of a subject, to do it thoroughly; and in doing this, I do not mean that you should merely acquire a knowledge of all the facts connected with it, but that you should investigate as far as possible the general principles running through these facts. There is nothing so destructive of the tone and vigor of a man's intellect, or so detrimental to his advancement in knowledge, as to rest satisfied with vague and superficial notions. When he comes to turn his supposed knowledge to practical account, every thing will be hazy and misty before him, and his action will be uncertain and inefficient. Endeavor, then, to acquire the habit of hanging on to a subject until you obtain clear and precise ideas in relation to it. Once acquired, you will find it of incalculable value. The very process of acquiring it will invigorate your understandings, and

instead of retarding, as might be supposed, will accelerate with tenfold rapidity your subsequent acquisitions. Recollect that all knowledge is more or less connected, and the thorough mastery of one subject, with its facts and principles, will really aid you more in your progress than a vague and shadowy acquaintance with the whole circle of the sciences.*

In the second place let me advise you now to begin a systematic course of reading in relation to your profession. In the course of his studies, and especially during his attendance upon the lectures, the student has little leisure for doing any thing more than to run over the ordinary text-books on the various branches to which his attention may be called. Useful as this class of books unquestionably is, there is another which is still more valuable. I mean those standard works on particular subjects, which embody the results of years of the thought and labor and experience of the ablest men, who have adorned our profession. In these, you will find subjects discussed in a very different way, from what they are in the popular text-books of the day. It is these, therefore, that you ought now to begin to read, and among others I would refer especially to the writings of Hippocrates, Boerhaave, Sydenham, Huxham, Sir John Pringle, Hillary, Moseley, Sir Gilbert Blane, Cleghorn, John Hunter, Rush, and the thousand valuable monographs with which our professional literature abounds. In alluding to Hippocrates, I would remark, that it is hardly to be expected that many of you will be able to peruse him in the original language in which he wrote. Of many of his more important works, however, you will find good translations, and these I would recommend to you. While on this subject, I cannot suffer this opportunity to pass without calling your attention to a work which is in progress, and which I trust will shortly make its appearance, and that is a condensed, yet full abstract of the writings of the father of Physic. This work is undertaken by our learned countryman, Prof. John Redman Coxe, of Philadelphia. Should the task be executed, as from the ability of the person engaged in it, I anticipate it will be, I know of no learned labor that will reflect more credit upon the author or upon the professional literature of his country, and at the same time confer a more lasting benefit upon his professional brethren. Should the work be patronized as it ought to be, it will furnish a good omen of the future progress of medicine in this country.†

---

* It is related of one of the ornaments of the English bar, Sir Edward Sugden, that he attributed his great success in professional life, to the cultivation of this habit. Sir T. F. Buxton states, in his memoirs, that he once ventured to ask him what was the secret of his success. To which he replied, "I resolved, when beginning to read law, to make every thing I acquired perfectly my own, and never to go to a second thing till I had entirely accomplished the first. Many of my competitors read as much in a day as I read in a week; but at the end of twelve months my knowledge was as fresh as on the day it was acquired, while theirs had glided away from their recollection."

† Since the delivery of this address, the work of Prof. Coxe has made its appearance, under the title of "*The Writings of Hippocrates and Galen, Epitomized from the Original Latin Translations,*" in an 8vo. volume of 681 pages, and comes up to all that was anticipated. I have only to unite with the venerable and learned author, in the wish expressed at the close of his work, "that it may awaken an interest in favor of our great predecessors, and eventually lead to a full and complete translation of their works."

In perusing the authors I have mentioned, do not, gentlemen, hurry over them. Make them the subject of meditation and criticism, and whenever you meet with a striking or important fact, or a new and ingenious train of reasoning, make a memorandum of them in a commonplace book, for the purpose of subsequent reflection and investigation. By steadily following up this plan, only for a short time, you will be astonished at the treasures of knowledge which you will accumulate; the new ideas which will start up in your minds, as well as the confidence which it will give to all your mental operations.

In the third place, let me recommend you to practise the art of writing. Every physician, whether he be ambitious of the honors of authorship or not, must now and then, at least, put his ideas upon paper for the purpose of being communicated to others. If he do this at all, he ought certainly to do it in such a way as not to disgrace either himself or the profession. Now, it is with writing as with every thing else. No man can do it well unless he make it a habit, and every student should, therefore, be in the daily practice of putting his thoughts upon paper. In a very short time this will impart an ease and facility which will render writing a pleasure rather than a labor. With regard to the style which you ought to cultivate, there are three things which I would more especially urge upon your notice as eminently essential. 1. *Perfect simplicity.* By this I mean the avoidance of pedantry, bombast, and all attempts at fine writing. These are inconsistent with the dignity of science, and are as opposed to a correct style as elegance and grace are congenial to it. 2. *Perfect intelligibility.* This is a cardinal feature in a good style, without which, in the present day at least, a book will not be read. The press is too prolific of books which can be easily understood, to expect the reader to stop and spell out his way to the meaning of an author. Some men, I am aware, plume themselves not a little upon the obscurity of their style, and flatter themselves that it is an evidence of their profundity. Do not, gentlemen, envy or emulate such profundity. You will generally find it slumbering away its existence in the dusky garret of the printing shop, or, perchance, making its way into daylight through the kind offices of the trunk-maker. 3. *Perfect integrity.* By this I mean a true style, in other words, that a style should be such as not to convey a double, or an exaggerated or a lessened idea—but that it should convey "the truth, the whole truth, and nothing but the truth." The importance of this feature in the style of a medical writer, must be self-evident. An erroneous idea conveyed in a medical work, either from design or inattention, may prove the source of incalculable mischief. I am the more desirous of calling your attention to this point, because the violations of it are, I fear, too frequent. Men even of upright intentions and with an honest desire after truth, not unfrequently give such a coloring to their statements as convey impressions very wide of what was, perhaps, intended, and certainly very wide of the truth. Let precision of thought and precision of language, then, characterize every thing that you write, and let the whole be conveyed in a style simple and intelligible.

In what I have thus far suggested to you, gentlemen, I have looked upon you merely as students of your profession, and I trust no period of

your lives will ever arrive when you shall divest yourselves of that character.

But you are also to be *practitioners of medicine*, and as such your ambition of course ought to be to render yourselves distinguished and useful. To enable you to become so, permit me to make one or two suggestions.

In the first place, cultivate the faculty of *observation*. By many, it is supposed, that this is the exclusive gift of nature and not improvable by art. Differing as men do undoubtedly in their powers in this respect, there still can be no question, that much may be done to improve them, by appropriate discipline and cultivation. To dwell upon the particular means by which this is to be accomplished would occupy too much time on the present occasion. I cannot, however, refrain from suggesting, that it is not to be done as a matter of course, merely by the multiplicity of the subjects for observation which may be presented to you. This is, indeed, the common opinion, and the public suffrage is accordingly too apt to be given in favor of those whose opportunities are the most extensive. The physician, therefore, who sees the greatest number of patients, is generally supposed to have observed the most, and to be the most experienced. Nevertheless, this is frequently a great error, proved by every day's experience. To have the opportunity of observing, is one thing; to observe, is another; and the observation of one case, correctly and thoroughly made, yields a richer harvest of knowledge and experience than do years of ordinary practice by an unobserving practitioner; and the history of one disease, or of the effects of a single remedy, given by the hand of a master, confers more lasting and real benefit upon the science and the world than ages of the experience of ordinary men. In fact, there is such a thing as seeing too much; and the rapidity and even hurry consequent on the attendance upon a great number of cases, is utterly fatal to that close and detailed investigation, without which observation is of no sort of value. Instead of following nature and exploring the peculiarities characterizing individual cases, every thing is viewed in the wholesale way, and remedies are prescribed accordingly. Now, it is very evident that such practice, however extensive, can never make an enlightened physician. In fact, the more he sees in this way, the less likely is he to become so. It is an interesting fact that Hippocrates practised only in small towns, not one of which, it is affirmed, was of itself able to support a physician. It is not, therefore, the mere amount of cases, or the extent of his opportunities; it is the capacity of observing and the power of extracting from each case every thing that is valuable, that forms the great physician. To the young practitioner just commencing his career, I do not know anything so truly encouraging, as the consideration of this very circumstance. During the first few years of his professional life, instead of repining at his want of business, he should recollect that this is a wise allotment, intended for his ultimate benefit. If he rightly improve the leisure he then enjoys, he has it in his power to make himself all that his highest ambition can crave.

But, gentlemen, you will find the observation of facts of comparatively little value, unless you possess the power of *reasoning* correctly upon them, and the culture of this faculty should be another object of your ambition. When I speak of the power of reasoning, I do not mean the ability to speculate or frame theories, but I mean the power which shall

enable a man to compare individual facts, and draw from them just and legitimate conclusions. Important as observation is, it is chiefly so as forming the basis of reasoning; and its being so, is the main reason why accurate observation is so invaluable. The necessity and importance of cultivating this faculty by the young practitioner, is self-evident. The whole of practical medicine is, or ought to be, an exercise of this faculty, and other things being equal, just in proportion as a physician is gifted with this talent will he become preëminent. As I have already stated, the practice of medicine is not a mere matter of routine. No two cases are exactly alike, and the same disease occurring in different individuals, presents itself under different forms and modifications, and in the just appreciation of these differences and modifications, and in the nice adaptation and adjustment of remedies to them, a constant exercise of the reasoning powers is called for. It is not, however, in ordinary practice that the necessity of the reasoning faculty appears most striking. To the enlightened physician, questions of grave import are continually presenting themselves, upon which he is required to give an opinion, and which, to be of any sort of value, must be the result of more or less elaborate trains of thought and reasoning. Questions in medical jurisprudence, for example, are only to be determined in this way. In cases of this kind, mere science, however profound, mere learning, however extensive, are not sufficient. It requires the exercise and application of a severe logic to arrive at just conclusions. By the absence of this, amid all the parade of learning, juries have been misled; life and character have been jeopardized; justice has been evaded, and the professional witness disgraced. Questions relating to the spread of epidemic diseases furnish another example. Whether yellow fever, for instance, is a contagious or a non-contagious disease; whether it is imported from other parts of the globe, or is of domestic origin, are problems of great interest, especially in all our commercial seaports, and have for a great length of time continued to agitate and distract the public mind. These every medical man who lays the least claim to intelligence ought to have investigated, and should have come to some decision in relation to them. And yet how can he do so intelligently and satisfactorily, unless he has cultivated the power of reasoning, or in other words, the power of comparing the general mass of facts which the subject presents and of drawing legitimate inductions from them. Had this power been possessed, even in a moderate degree, by many of those who have talked the most loudly and written the most boastingly on this subject, how much empty assertion, how much bloated dogmatism, how much noisy absurdity would not the world have been spared. Had their minds been better disciplined, instead of appealing to the fears and prejudices of the public, always alive on such subjects, they would have rested it on the sure ground of fact and judgment. Instead of attempting to decide it by names and authority, it would have been subjected to the test of reason alone.

There is only one other incentive which I shall offer to show the necessity of cultivating the power of close and accurate reasoning, and this is the incessant tendency which there seems to be in our profession to indulge in theories and hypotheses. From the remotest periods down to the present day, this has been the current vice of physicians. Why this has been the case, is a subject of interesting inquiry, and would lead

to many important views of our science. This, however, is foreign from my present purpose. If these theories had been confined to subjects of abstract speculation alone, their consequences would have been as harmless as their textures were frail. Unfortunately, however, they have formed the basis of modes of practice, under the operation of which hundreds and thousands of human beings have been hurried into premature graves. Now, how is any correct judgment to be formed concerning the respective merits of these theories and practices except by an observing, thinking and reasoning mind, which shall be able to analyze the principles upon which they are founded as well as to detect the fallacies by which they are supported.

Again, gentlemen, if you hope to succeed as good practitioners, cultivate a *generous love of your profession.* By this I do not mean that love of an occupation which yields a man great pecuniary rewards, nor yet that love of it which arises simply from habit or long-accustomed use. To inspire either of these requires neither learning, nor talent, nor generous feeling. I mean something nobler than this. I mean that love of your profession which shall induce you to devote all your faculties to the cultivation of it, and which shall inspire you with the lofty ambition of signalizing yourselves in it, by improving the science and benefitting mankind. Now the only way to do this, is to consider your profession as a *learned one.* Without learning, no just conception can be formed even of the *nature* of medicine as a *science,* while the connection between principles and the application of them can never be appreciated. Hence, without this, it must be practised as a mere art or trade, and the interest taken in it can be nothing more than that taken in any ordinary occupation or labor. More than this, in the practice of medicine there are so many things positively disgusting; there is so much of actual suffering to be witnessed; so much of frailty and vice to become privy to; so much of caprice and even insult to be encountered; and, besides this, so many humiliating offices to be submitted to, that were this all, no man of generous mind would be found in the ranks of the profession. Viewed, however, with the eye of philosophy, and with the cultivation which learning engenders, all these disadvantages are as nothing. It is found to be a noble science, involving subjects of the highest interest, and the most momentous import. Every practical detail is found associated with some interesting fact in relation to the animal economy, or with some important principle in the management of disease. The humblest offices rise into consequence, and everything is teeming with interest and instruction. Every fact, however trivial or apparently unimportant, calls into exercise the power of observation, and in its wide spread relations to other facts, supplies incessant materials for all the powers of thought and reason. Thus it is that the glow of enthusiasm is enkindled, without which genius is cold and science barren. In this way it is, that learning creates a love of the profession, which can be acquired in no other way; and in no profession is such enthusiasm so essential, as that of medicine. A science, boundless in its extent; and in many respects most abstruse in its nature; built upon long-continued and repeated observation; requiring aids and helps frequently most difficult of attainment; *nothing* can be accomplished without zeal and devotion, and *with these,* it is truly astonishing what may be done. Inspired with these, even ordinary intellects have performed

prodigies and left behind them imperishable monuments of labor. To the young practitioner of medicine it is hardly necessary to say, how absolutely essential it is that he should cultivate such a love of his profession. If in the uncorrupted period of his existence he do not acquire it, it is in vain to hope for its attainment in after life. As he advances in years, other feelings and passions gain the ascendancy, and he will find, perhaps before he is aware of it, that he is pursuing his profession with no higher motive than that of gaining consequence in society, or, of amassing a fortune. From such a man, science has nothing to hope, and he gives to the world and to his profession nothing but the influence of a barren and bad example.

But, gentlemen, I must bring these desultory observations to a close. Before I do so, however, let me urge upon you, amid all your acquisitions—amid all the honors and success, which I trust may flow in profusion upon you, to *cultivate a spirit of humility and modesty.* Recollect that this is the gem, which shines the brightest in the crown of the greatest men that ever adorned our nature. Look at Newton! Although by his wonderful intellect he towered so immeasurably above the rest of mankind, yet his unaffected modesty raised him still higher in the scale of excellence. And what think you was the reason? Why, his eagle glance had pried into so many of the mysteries of nature; he had ascended Pisgah, and had seen so many of the wonders of creative power before him, that he was humbled with the consciousness of his own weakness and ignorance, and bowed with a lowly spirit before the great and incomprehensible Creator of all things.* And so it ought to be, and will be with every right-minded man. The farther he advances in the path of knowledge, the less will he think of his acquisitions, and the more deeply will he feel how narrow and feeble his powers are, and how little, very little, even of the sciences well understood, he can hope to compass. I am the more anxious, gentlemen, to urge upon you the cultivation of such a spirit as this, because I am convinced it is the offspring, as well as the ornament, of true knowledge. If you possess this spirit, you will not arrogantly set yourselves up to decide upon questions beyond your comprehension. Above all, you will never suffer the pretensions of science to sit in judgment upon the Almighty. With regard to the Bible you will reason thus—Here is a book which professes to be written under the inspiration of Heaven. If it be so, (and of this the evidence is overwhelming,) every word of it must be true; it cannot be otherwise—and you will give to it your entire and unqualified belief. And you will not permit any apparent discrepancies between it and the pretended discoveries of modern science, to shake your belief. In the spirit

---

* A short time before his death, it is stated that he uttered this memorable sentiment:—"I do not know what I may appear to the world; but to myself I seem to have been only like a boy playing on the sea-shore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, while the great ocean of truth lay all undiscovered before me."—*The Life of Sir Isaac Newton.* By David Brewster, LL. D., F. R. S., p. 301.

Of Socrates, it is said, that he declared that he knew no reason why the oracle of Delphos pronounced him the wisest of men, except it was that, being conscious of his ignorance, he was willing to confess that he knew nothing.

of true philosophy, as well as of true religion, you will confess that science is still in its infancy; that man's powers are at best feeble and limited, and that it would be profanity, as well as folly, to set up these against what you believe to come directly from the Almighty. Under the influence of such a spirit as this, too, gentlemen, I conceive you will best be enabled to perform all your relative duties. To your professional brethren, you will extend all the offices of courtesy and good feeling. To your patients, you will devote all your best energies. You will look upon them not merely as the subjects of scientific and professional interest, but you will sympathize with them as partakers of the same common nature, and destined to the same end as yourselves. While to the public, you will set a bright example of blended science and virtue.

Before I close, let me throw out one word of encouragement, in relation to your future prospects. There is nothing so common for young men just entering upon life, and especially those of enthusiastic minds, as to call up to their fancies, the numerous difficulties and discouragements which are to obstruct their career. They look around them and see the whole word in action. Every post of honor and of emolument is already occupied. Every avenue to fame and fortune is already crowded with aspiring candidates. They turn with disgust from the scene—they despond, and they begin to imagine that success is impossible. Now, all this is founded on mistaken and imperfect views of human life. A few brief years will level all these distinctions. As you advance, you will find all the busy actors who now so greatly fill your imaginations and excite your fears, sinking, one by one, and leaving vacant more than enough to gratify your largest ambition. Let not, then, these considerations discourage you. Before you are aware of it, opportunities of distinction will present themselves, and the only question then will be, are you prepared to seize the proffered honor. The early part of your lives is the one, as a general rule, the best fitted for study and exertion, and if you loiter away that precious period in idle and vain forebodings, or what is worse, squander it in indolence or dissipation, you will find honor after honor eluding your feeble grasp—fortune will spurn you, and place the crown on other and worthier brows. Begin life, then, with a manly courage. Cast behind you that cold-blooded philosophy which would teach you that you are not to expect success. Recollect that it is a law of the Almighty himself, verified by the whole experience of mankind, that honest endeavor, with an humble reliance on Providence, will sooner or later meet with its reward, and you need not fear that you will be made exceptions to the general rule. It only remains for me now to bid you an affectionate farewell.

ART. II.—*Cases of Erysipelas, which occurred at Soluca, Mexico.* By ISRAEL MOSES, M. D., U. S. A.

IN these observations I propose to give an account of some cases of erysipelas which occurred in the city of Soluca, Mexico: and as the locality and circumstances under which diseases arise are both interesting and instructive, I have preceded my cases by a brief account of the place where they occurred. About the 8th of January, 1847, the 6th and 8th Infantry

and 4th Artillery, under General Cadwallader marched from the city of Mexico. The sick were left behind, so that we set out with a clean bill of health. Soluca, the capital of the state of Mexico, forty miles from the city of Mexico, is situated in the midst of a most beautiful and fertile valley, environed by hills. To the S. W. of the town is the Nevada de Soluca, a mountain 2000 feet above the valley terminating in five snow-capped peaks which enclose a lake, upon the banks of which is a monastery. The centre of the valley is occupied by Lake Lerma into which numerous streams flow from the mountains, abundantly supplying the villages and towns with the clearest and most delicious water. Corn, wheat and barley are the principal products. Soluca contains about ten thousand inhabitants, and is well built in the form of a square. The streets which run parallel in both directions are kept in an admirable condition of cleanliness, by a system of drainage, which might be advantageously adopted in our large cities. The cleaning of the streets is done by prisoners. The temparature is much lower and less equable than in other parts which I visited. Gusts of wind, generally coming from the N. W., were frequent; often followed by heavy falls of rain, loud thunder and vivid lightning. On the 6th of March, a violent hail-storm occurred, which lasted about an hour. In fine weather the thermometer usually stood at 60° to 65° from 9 A. M. until 6 P. M.; during the remainder of the day varying from 48° to 52° F. Sudden and great changes were frequent, the thermometer sometimes falling 10° or 12°. The inhabitants usually enjoy good health. Diseases of the nervous system prevail extensively in the various forms of paralysis, chorea and arrest of development in different parts of the body. Affections of the eye causing blindness are frequent. Smallpox has prevailed extensively amongst the Indians inhabiting the valley. About four-fifths of those who come to the city on market-days, are deeply pock-marked. Vaccination is rarely or never practised, as far as I could ascertain, even among the educated. A fact worthy of note in the medical history of this place is, that during the cholera season, 1833, not a single case occurred at Soluca, while it prevailed extensively in the town of Lerma, fifteen miles distant. The elevated position of the town rendered it very salubrious; though we all suffered more or less for a short time after our arrival, from difficult or embarrassed respiration: indeed, one officer who was inclined to phthisis was compelled to leave, in consequence of the aggravation of his cough and pain in the chest. As was to be expected, diseases of an inflammatory character prevailed, especially pneumonia, bronchitis and rheumatisms, as there were no fire-places in the houses which our troops occupied, they were more or less cold and damp, especially in wet weather; the floors are of brick and the rooms contained no fire-places. This was the only appreciable cause for the cases of erysipelas which were very numerous in all the regiments. It was remarkable that this disease, in nearly all the cases, commenced and was confined to the face and head. Slight cuts or scratches frequently gave rise to erysipelatous inflammation. As the inhabitants did not suffer, we naturally supposed that it may have been the effect of this elevated temparature or the *dampness* of the barracks, upon our soldiers who had been some months in the warm and equable temperature of the city of Mexico or the lower country. During two months that the 6th Infantry

(to which regiment I was attached) occupied this town, nine cases of erysipelas occurred of a severe character, in nearly all of which the disease commenced or was confined to the head and face. A short outline of the cases may not be uninteresting.

Case 1.—The first case, Private Hoffman, occurred a fews days after our arrival. He was attacked with uneasy, chilly sensations and general *malaise* in the evening and presented himself next morning, complaining of pain and sense of enlargement of the head. Tongue heavily coated; loss of appetite; fever, etc. The face was swelled generally and spots of redness were visible about the forehead, between the eyes and brows. He was ordered an emetico-cathartic and light diet; the next day the redness and swelling had increased, so that the forehead and nose were affected. I painted the part with a strong solution of nitrate of silver and gave him good diet of soup. As the disease increased I painted the parts with the caustic solution, until the extension of it was checked, which was on the fourth day, when it covered the whole face; from which time he recovered.

Case 2.—A few days after, Private Ryan was attacked in the same manner but with greater severity, the disease rapidly spreading so as to involve the face, scalp, ears and neck, completely distorting his features, and giving his head nearly twice its natural size: active febrile symptoms, with delirium set in. Tongue heavily coated, dry and brown in centre. Pulse 100, full and strong. Ordered calomel, gr. x., ipecac. gr. xxx., which vomited and purged him moderately. Painted the face with the solution of caustic and applied cloths dipped in a warm lotion of acet. plumbi and opium, which greatly relieved the intense burning. The hair was cut short; on the third, next day, he began to take quinine, gr. x., three times a day with wine and beef soup. On the eighth day, numerous abscesses formed beneath the scalp, and the disease had been checked. At the same time a hard and painful tumor began to form over the mastoid process on the left side which after being poulticed for a few days was opened and more than an ounce of pus evacuated. About the twelfth day the patient may have been considered recovering, though the convalescence was tedious. The same treatment and diet was continued throughout the period of illness.

Case 3.—January 15th, Private Stewart was brought to the hospital with swelling of the right leg and foot, attended with burning and itching pain, redness, etc. The limb as far as the knee was tense, shining, painful on pressure and pitting. The constitutional symptoms were slight. The caustic lotion was freely applied, which evidently cut short the disease on the third day. But as it receded from the lower extremity it attacked the face from the edge of the scalp to the upper lip where it was checked by the same means. Quinine, gr. x., three times a day were given from the commencement with good diet. The disease on the face was much more acute than on the leg and attended with active febrile symptoms, furred tongue, loss of appetite, but no delirium.

Case 4.—On the 21st January, Private Agnew presented himself with

redness, swelling and pain of a burning character about the right ear, which had been ushered in the previous evening, with chill followed by uneasy pains in the head and back. The disease was well marked. I directed the affected part to be painted with nit. silver solution, and emitico-cathartics to be taken, and plain but good diet. On the next day after the prima viæ had been cleared, I ordered quin. gr. x., q. 4 h. The erysipelas extended so as to involve the whole side of the face. The solution was freely applied, but did not seem to produce any appreciable effect until the third day, when the disease no longer spread and convalescence was established. In this case there was no delirium.

Case 5.—February 6th. Private Dunn was brought to me from the guard-house, where he had been confined for drunkenness, with his face very much swollen and of a dark red color, shining and œdematous; not having slept for two nights and suffering from the apparitions of mania potu: had eaten nothing for the last twenty-four hours. There was tremor of all his limbs and tongue which was thickly coated with a yellow slimy fur and disposed to be dry. Pulse strong, 100. He was ordered cal. gr. xv., to be followed by ol. ric. The face to be painted with caustic, and cloths saturated with a lotion of acet. plumbi and opium to be laid over. The next day, all his symptoms were aggravated, the erysipelas was spreading over the scalp and down the neck, he had been delirious all night; his tongue was now dry and brown; sordes accumulating on his lips and teeth; constant tremor and subsultus; comatose, unable to answer questions: skin hot and dry: pulse 120, feeble and quick. As he was rapidly passing into a low typhoid condition, stimulants were freely administered in the form of hot brandy toddy in which quinine was dissolved: carb. ammonia 10 grains every two hours and beef soup. The sol. nit. silver was reäpplied to the whole surface inflamed, and covered with the wet cloths. During four or five days, the man continued in a dangerous condition. The head and face were frightfully enlarged and features distorted; breathing and deglutition were performed with the greatest effort: the coma was deep and constant; tongue dry and hard as a board. The stimulating plan was firmly and steadily pushed. The quinine was increased to twenty grains every two hours, with carb. ammonia, brandy and beef-soup. The first symptoms of improvement were evinced on the morning of the eighth day, following the application of blisters inside the thighs, when he appeared to be slightly conscious and asked for some drink which he swallowed eagerly though with effort. From this time he continued to improve slowly under the continued use of stimulants and tonics. His face was really a disgusting sight to look upon, being one continued hard black crust, resembling that of a person who was recovering from an attack of confluent smallpox; without a distinct feature or the least expression; the eyelids not capable of being separated. The convalescence was tedious and he was unable to return to duty until May. This was a most interesting and instructive case to me and I watched the issue with anxiety, scarcely believing that he could recover by any human aid, yet I was most agreeably disappointed. Indeed, I have within my short experience seen so many cases apparently hopeless, recover by careful watching and the judicious application of remedies, that I hesitate in ever expressing an

unfavorable opinion as to the result, and invariably quote the old but trite maxim, "While there is life, there is hope."

Case 6.—February 15th. Private Mott was attacked with chill, followed by fever and burning pain in the head and eyes. When he came to the hospital the forehead and eyelids were of a bright red hue, swollen and painful to the touch: tongue coated, moist; pulse 100, of good strength. Moderate heat of skin. As his bowels had not been emptied for two days, he was directed to take an emetico-cathartic, which operated well, after which he took quinine, gr. x., every four hours: the affected parts were painted with the usual application. During the next two days the disease spread over the entire face and ears, which were swollen, tense, red and very painful; as the redness extended the caustic solution was applied so as to cover the whole diseased part and a margin of healthy surface beyond the line of demarcation, and we were pleased to notice that on the fourth day from the attack the redness no longer extended. The swelling began to subside and in a few days desquamation set in. During all this time he continued to take sixty grains of quinine in the twenty-four hours, with beef-soup once a day for dinner. In this case there was no delirium nor any typhoid symptoms, the attack being of a sthenic character and occurring in a man of robust health.

Case 7.—Private Lovett was attacked in the same manner as the above case, the disease first appearing in the right ear and extending to the face and eyes; the same treatment in all respects was pursued, and with the same good results: he returned to duty on the tenth day from the attack.

Case 8.—Private Cuppinger was brought to the hospital, March 4th, having received a sabre cut over the head, about three inches in length and down to the cranium. As the wound was slight it was simply dressed with adhesive plaster, the hair being shaved off for a short distance around. The next day, about noon, he complained of feeling chilly, which was followed by some febrile excitement, thirst, anorexia and pain in the wound. On removing the dressing, the cut was gaping, the edges swollen, red and œdematous, and this appearance extending for some distance over the scalp. The head was shaved and the edges of the erysipelatous blush painted over with the nit. silver solution, quinine, gr. x. q. 4 h., ordered with soup diet. The disease extended in front only, and as far as the eye-brows where it was checked. The patient recovered in ten or twelve days.

Case 9.—February 25th, was sent for to visit Lieutenant ——, in consequence of a renewal of hemorrhage from a chancre on the penis. This officer, while in Puebla last August, contracted syphilis, which destroyed the prepuce and nearly one half the glans penis. Soon after the entrance of our army into the capital and having been on duty during the engagements, without taking proper care of himself, he was attacked with violent hemorrhage from the ulcers, which at one time rendered his recovery doubtful. Previous to my being sent for, however, he had entirely recovered his health, and the chancres no longer required other than sim-

ple dressings. On the 24th, we rode out together some three miles to see a division drill and the same night he indulged in a debauch. Though generally regular in his habits, he had for a few days been living rather freely. On visiting him, I learned that he had lost about two ounces of blood and found it still flowing from a point of the chancre not yet healed. I applied a styptic with lint and bound the part tightly. I noticed at the same time a general tremor of his hands and tongue and a peculiar expression of anxious fear on his countenance. Since he had retired he had been restless and unable to sleep. Perfect rest in bed and a pill containing two grains each of opium and camphor were prescribed.

26th. Restless and dreaming all yesterday, no appetite, no sleep, increasing tremor of tongue. At bed-time I gave him two ounces of brandy, and eighty drops tr. op. combined with camphor water. About 11 o'clock he became very wild and delirious; could not be kept in bed, but was constantly wandering about and seeing imaginary objects. At 6 o'clock this morning I found him up, dressed and in the act of shaving, which he left half unfinished, and upon asking him why he did not wait until later, said "he was obliged to make a report of the battle which had been fought last night." He was persuaded to go to bed, however. Tongue was moist, and coated yellow. Pulse 120, quick. As there was a great deal of nervous exhaustion and tremor, the following was ordered: ℞. tr. op. ℥ss., carb. ammonia, gr. xi., aq. camphoræ et brandy āā. ℥ij, a tablespoonful every two hours, porter and chicken-soup; penis was dressed; no hemorrhage.

27th. Has not slept in spite of the large amount of anodyne which he has taken, but has been all night in a most fearfully-excited state, constantly talking and commanding as if in battle. In addition to what was prescribed in the morning he took a drachm of laudanum every hour from 8 o'clock until midnight, without producing the slightest quietude until 6 this morning, when he seemed disposed to sleep, and I left him to attend to my morning duties. At 7 o'clock he was quiet and breathing heavily as if in deep sleep. At 8 I was sent for and told he was dying; he was comatose, unable to be aroused, pupils very much contracted and insensible, pulse 144, very quick and small, lips and nails blue, in fact almost moribund; large sinapisms were applied to the legs and abdomen; cups to the temples and along the spine; enemata of brandy with 30 grains of quinine given, and as much brandy with carb. ammon. by the mouth as he could be made to swallow; as these remedies seemed to produce no effect, I had his spine rubbed with croton oil. After steady application of these means for two hours and a half his skin began to grow warm; he opened his eyes and put his hand on his thigh, as if to remove the mustard.

March 1st. He has slowly improved since last date, and slept a great deal. This morning an erysipelatous redness appeared on the left leg, where the mustard had been applied, also on the left natis, both of which were painted with the nit. argent. sol. Quinine, wine and porter, with chicken-soup have been continued.

2d. Erysipelas has spread over the foot and ankle, which are swollen, painful, tense and shining; that on the natis has extended to the groin and it has appeared on the forehead and temples.

3d. Rather restless and uneasy last night, disposed to wander in mind;

this morning rational; ate a piece of beef-steak and drank some coffee. Erysipelas still extending, particularly on the face.

4th. Passed a comfortable night and is decidedly better this morning; complains of deafness, the result of the large doses of quinine which he had taken; erysipelas on the face is fading; the whole left lower extremity from the hip to the toe is involved; continued sol. nit. argent. to leg. Quinine, gr. viij. q. 4 h., chicken-soup and brandy-toddy, anodynes at night.

6th. Mind feeble and disposed to indulge in fancies; general symptoms improved, erysipelas on the face has subsided, the leg and foot are in the same condition, but more œdematous and numerous vesicles cover the calf and ankle, which were yesterday enveloped in a flaxseed poultice, giving great relief to the burning heat. Continue treatment.

10th. Foot and leg are much better, a spot about the size of a dollar on the dorsum of the foot has sloughed. Bread and beer poultices have been applied with a continuance of the same course of medicines and diet. He is so much improved, that I determined to carry him to the city of Mexico in an ambulance, as we were ordered to march on the next day. He bore his removal well, and slowly recovered, though for a long time he was fully persuaded that his illusions were real. During his convalescence the ulcers on the penis entirely healed, but numerous small abscesses formed beneath and on the eyelids, hips, elbows, scalp and elsewhere. He is now fully recovered, except slight lameness.

I have related the history of this case as briefly as I could, endeavoring to bring out only the most important events from the very copious notes which I took at the time, but I could not refrain from entering somewhat more fully into the details of a case which proved so interesting and instructive to me, and hope it may be somewhat so to others. The obstinacy with which the nervous system, under some diseases, will resist the sedative effect of opium is well exemplified, as well as the energetic means which we are obliged to employ, when at last the nervous energy becomes exhausted and vitality is scarcely to be preserved.

As all these cases occurred in men of robust constitutions and enjoying good health, the treatment pursued will approach more nearly a *standard*, than that pursued when it occurs among the poor in large cities or in public charities, while we may attribute the disease more precisely to a single cause, which is universally acknowledged to be productive of the disease, viz. a residence in cold and damp buildings or exposure to cold and wet.

In Cases 5 and 9, intemperance no doubt brought the system into a condition more prone to the malady, and hence aggravated the severity of the symptoms. In what particular way causes act to produce this disease, we are unable to explain, but it is a well-ascertained fact that whatever tends to impoverish the blood and depress the vital forces will induce it, hence we have it arising spontaneously in the crowded wards of civil and military hospitals, in prisons, on ship-board, in low, damp situations and among those suffering from depressing affections of the mind.

Being aware of these facts, it seems strange that some practitioners have been led so far away by preconceived ideas of its strictly *inflam-*

matory nature, as to recommend that blood-letting and antiphlogistic remedies should be vigorously employed, in order to *cut short* the disease, the possibility of which many, and among them Dr. Watson, seem to discredit. The weight of the prevailing opinion at the present time, is in favor of the stimulating and supporting plan of treatment, and the avoidance of blood-letting; and of this I would wish to be considered an humble advocate. Among its supporters are Drs. Fordyce, Wells, Heberden, Elliotson, and Williams, all of whom have possessed the most extensive opportunities of witnessing its beneficial effects. At the onset of the disease, where the symptoms are apparently highly inflammatory, with active delirium, we are strongly inclined to suspect cerebral complication, and use the lancet; but meningitis and cerebritis are, I believe, rare complications, and blood-letting seldom or never called for. During the last three years I have probably attended forty cases, in not one of which has the lancet been indicated. On the contrary, a steady perseverance in the stimulating and tonic course, has met with the most flattering success in my own practice and that of all our army surgeons with whom I have conversed. The use of a strong solution of nitrate of silver, (a scruple to the drachm,) and which has lately been strongly advocated in the Journals, at home and abroad, has been applied with the most decided effect of controlling the disease, while the lotion of acet. plumbi et opium, either cold or warm as was most conducive to the comfort of the patient, has tended to relieve the painful sensation, "as if the part were on fire," as many expressed themselves.

As will be seen from the history of the above cases, quinine was used in all except the first, from at an early period of the disease, and continued throughout, the dose varying according to the degree of severity of the symptoms. Of the stimulating and tonic effects of this remedy, in all diseases marked by depression of the nervous forces or impoverished sanguification, I am well convinced. Its astonishing power in the cure of that form of congestive fever which occurs in the southwest, I had an opportunity of witnessing during the summer, at Jefferson Barracks, Mo.

ART. III.—*Cases of Inguinal Aneurism, with Remarks.* By W. H. VAN BUREN, M. D., Surgeon to the Bellevue Hospital.

I. *True Inguinal Aneurism; attempt at manual compression of the external iliac artery; subsequent ligature of the artery; cure.*—Mr. S. B. H., of Tarrytown, N. Y., 25 years of age, and of robust constitution, came to the city, and placed himself under my care, in July, 1848, with an aneurism in the right groin, about the size of an orange.

In the month of March, 1848, Mr. H., whose health had previously been excellent and uniform, was accidentally jammed between the wheel of a carriage and a gate-post—the wheel striking the buttock, and forcing the groin against the post; to save himself from being crushed as the carriage passed, he pushed backwards with all his strength—so much so as to lift the wheel, and force the carriage to some distance from the post. He was much bruised by the accident, and limped for a fortnight afterwards, at

the end of which time he, one night in bed, accidentally discovered a pulsating swelling in the groin, about the size of a hazel-nut.

From this period, until he came under my notice, the tumor had steadily increased, and during the three weeks previous, it had almost doubled its size. It was situated immediately below Poupart's ligament, and presented a lobulated appearance; its contents were entirely fluid. Pressure upon the external iliac artery arrested the pulsations of the tumor, and caused it to collapse. The aneurismal thrill was trifling. The patient was otherwise in perfect health.

On being informed of the nature of his disease, and its only certain remedy, Mr. H. expressed his entire willingness to submit to the necessary operation.

During my examination of the tumor, I was struck by the ease with which its pulsation was controlled by accurate pressure of the trunk of the external iliac artery against the pubes; the force of one finger seemed almost sufficient to command it. This circumstance, with the recollection of the success recently attained by Prof. Knight, of New-Haven, in the treatment of a case of popliteal aneurism, by continual manual pressure applied by relays of assistants to the trunk of the femoral artery, induced me to think seriously of the feasibility of employing similar means in the present instance. Pressure by means of an instrument I was satisfied could not be borne, but the apparent practicability of this novel mode of applying it, with the remotest possibility of its success, led me to conclude that I should not be doing justice to my patient were I to neglect the chance, and I accordingly determined, whilst he was becoming accustomed to his new quarters, to give it a trial.

Having obtained the assistance of a sufficient number of my friends—whose devotion to their object certainly deserved better success—we commenced pressure with the fingers upon the artery about an inch above the crural arch, on the 1st of August, at 12 o'clock, M., having previously evacuated the bowels, and placed the patient upon a hard mattress, under the influence of digitalis, by which the pulsations of the heart were reduced to 45 per minute. It was thought better that cold should not be applied to the tumor. During the first eight or ten hours the pressure was accurately kept up, and borne without complaint; some pain and restlessness then occurred, which was measurably relieved by morphia. At the end of twenty-four hours, although the pain was endurable, we found that much more decided pressure was required to restrain the pulsation in the tumor; this difficulty continued to increase, as well as the pain, which became very severe, especially at the time of changing hands, and finally, at midnight on the 2d, after having been faithfully maintained during thirty-six hours, it was found necessary to discontinue the pressure.

The condition of the tumor was apparently unaltered. Some inflammation of the integuments followed, at the point of pressure, which terminated in an impetiginous eruption, and two weeks elapsed before the parts were in a proper condition for the operation.

On the 17th of August, I applied a ligature to the external iliac artery, at a point about an inch and a quarter above Poupart's ligaments, adopting the operative method recommended by Mott. The patient was placed fully under the influence of a mixture of chloroform and ether,

(equal parts by weight,) which was kindly administered by my friend, Dr. Metcalfe, who was present, with Professors Mott, Parker, Dr. J. P. Batchelder, and a number of medical gentlemen. The anæsthetic influence was perfect, and the operation, consequently, performed without the slightest delay. I was particularly struck by the entire immobility of the abdominal muscles, whose almost constant and involuntary motions are so apt to annoy the surgeon during this operation.

The slightest possible chill and fever followed, within the first twenty-four hours, after which no morbid symptoms occurred. Adhesion took place in the wound—without any evidence of local inflammation.

The limb retained its natural sensibility, but became about 5° colder than its fellow—which difference in temperature has persisted, with very little diminution, to the present time. The ligature came away on the 17th day, and the slight fistulous opening left by it was entirely closed by the expiration of the third week. At the end of the sixth week the tumor had diminished to the size it possessed when first discovered, and my patient left the city well satisfied with his condition. At this time I could discover no pulsation in either of the tibial arteries, although they could be felt to be tense, and apparently filled with blood.

The only point of particular interest in connection with this case is the attempt at treatment by compression, applied to the external iliac artery by manual pressure, which as far as I am informed, was not warranted by any precedent. There is a case on record, to which I am not at present able to refer, in which instrumental pressure was successfully applied to this artery for the purpose of restraining hemorrhage; it was sustained for some time, and although its object was attained, an extensive eschar followed. In 1816, Dupuytren tried systematic pressure, applied half an inch above the crural arch, in a case of inguinal aneurism, by means of an instrument similar to those at present in vogue, the sacrum being taken as the point of counter-pressure. A second instrument, on the principal of the ordinary spring truss, was also employed in the same case. Both attempts were unsuccessful, from the inability of the patient to bear the pain of the pressure, and the disease was subsequently cured by ligature of the artery.—*Leçons Orales*, Paris, 1834, t. III., p. 540.

The failure in the present instance is attributable to the amount of pain produced by the pressure; to the consequent swelling of the parts situated over the artery; and, principally, to the spasmodic action of the lower portion of the internal oblique and transversalis muscles, which rendered it extremely difficult to prevent the artery from rolling beneath the fingers, and thus escaping from even an increased amount of pressure. The first obstacle is not an insuperable objection; my patient bore the pain well, and could have borne it for a longer time; the two latter seem to be inherent in the method employed. With these difficulties in view, however, I should not entirely despair of success, by this method, in a thin subject moderately tolerant of pain. In any case, the attempt could not exert other than a favorable influence upon the success of the subsequent operation, by throwing the stress of the circulation temporarily upon the anastomozing branches, and thus contributing to their enlargement, an object which can never be regarded as entirely unnecessary, inasmuch as gangrene follows this operation suffi-

ciently often, even under the most favorable circumstances, to keep the surgeon ever alive to its danger.*

There are several cases on record, of inguinal aneurism, in which pressure applied directly to the tumor has succeeded in curing the disease.

Dr. Albers, (*Med. Chir. Trans.*, Vol. IX.,) relates a case in which the patient having refused to submit to an operation, pressure was applied to the tumor by means of a pad and screw, at first it could not be borne on account of the pain, but it was afterwards continued more moderately, for a period of seven months, at the expiration of which time the disease was found to have been cured. The same surgeon relates a second instance in which pressure was continued for *six years*, without success; some benefit must, however, have followed the remedy in this case, as the disease would not probably have continued so long a time without a fatal result, if it had not been employed.

Dr. O'Bryan Bellingham, (*Dublin Quart. Jour.*, Vol. XXII.,) employed pressure by means of straps and bandages, with a good result, for an aneurism of the external iliac artery for which he had previously applied a ligature to the same vessel,† the disease having reäppeared a year later.

A case is recorded in the *Lon. Med. Gaz.*, 1845, in which Mr. Luke succeeded by the same means in curing his patient; and a similar instance of success was obtained by Mr. McCoy, of Dublin, (*Dub. Med. Press*, Vol. IX.)

These cases, which are of course exceptional, deserve, nevertheless, to be borne in mind, in connexion with those treated by compression, during the last century, by Guattini. They serve to exemplify the value of a resource, which, although rendered comparatively unnecessary by the brilliant operation of Abernethy, might prove, under certain circumstances, of immense utility to the surgeon.

The following case, which, by the kindness of Dr. Mott, I am permitted to record, presents points of more decided interest—in the unusual nature of the disease and its melancholy termination, and especially in connexion with the important question of surgical practice which it involves.

II. *Arterio-venous Aneurism near the groin; ligature of external iliac artery; death from gangrene.*—Mr. H. C. O., of Barbour county, Alabama, 21 years of age, of slight build, and previous good health, received in an affray, in the month of July, 1844, a wound from a pistol ball, which entered about an inch and a-half below the ant. sup. iliac spine on the right side, and traversing the front of the thigh in a line directed obliquely downwards and inwards, lodged immediately beneath the skin on the inside of the limb, about two inches below the pubes. There was a great gush of blood at the time of the accident, which was, however, readily staunched by pressure, and did not again recur; the wound healed without difficulty, under ordinary treatment, the ball being removed by incision.

---

* See note p. 176.

† This case is incorrectly stated by Mr. Crisp (*Dis. &c. of Blood-vessels, Lond.* 1847, p. 249,) to be the first on record, in which the external iliac has been tied for aneurism of this vessel. The case of our countrymen Dr. Jameson, of Baltimore, (*vide Philad. Med. Recorder*, 1822, Vol. V., p. 118,) has the precedence by twenty years.

Shortly after his recovery a pulsating tumor was discovered just below Poupart's ligament, over the track of the femoral vessels.

Early in December, 1846, he arrived in New-York to place himself under the care of Dr. Mott. At this time there was a general enlargement of the upper fourth of the thigh, with considerable induration, and, over a space some 3½ inches in diameter, in the position described above, a strong aneurismal pulsation was felt, accompanied by a very distinct and peculiar *purring* thrill. There was no marked prominence at any point, constituting a distinct tumor. Pressure upon the external iliac artery, arrested the pulsation and thrill in the tumor. At the point where the femoral artery enters the tendon of the *adductor magnus*, its pulsation could be felt, perhaps more distinctly than usual, but without any perceptible thrill. On the upper part of the thigh there were a number of enlarged superficial veins, and at several points below were patches of permanently distended capillary vessels. There was also a small ulcer on the leg of two months' standing. Some numbness and weakness of the limb were complained of, which rendered active exercise inconvenient.

On the 16th of December, at 2 o'clock P. M., a ligature was applied to the external iliac artery, by Dr. Mott, with the immediate effect of stopping all pulsation in the tumor. The operation, although its details were executed in the most perfect manner, was badly borne by the patient, who was laboring under much nervous excitement, and exceedingly sensitive to pain. Some prostration followed; a good deal of pain was complained of in the wound, and a sensation of numbness throughout the limb. The patient was conveyed to bed; the limb, whose temperature had diminished considerably, was enveloped in carded cotton, and a full anodyne administered. At 7 o'clock P. M., there was still much pain complained of, with anxiety and restlessness. Pulse 56; very small. The limb was 7 or 8 degrees colder than the sound one, and there was no sensibility on pinching smartly the inside of the calf. Bottles of hot water were ordered to the limb, outside of the cotton, and 20 drops of Magendie's solution of morphine, to be given immediately.

December 17th, 1½ o'clock P. M. The patient had dozed uneasily through the night, with less complaint of pain, and was still somewhat under the influence of morphine. He complained of vague, dull, tensive pain about the lower part of the abdomen. Slight oozing had occured at the wound of bloody serum. The limb had become warmed from the contact of the hot bottles, but there was no sensible increase of its natural heat, and no evidence of sensibility. There was a mottled, purplish appearance about the foot. Pulse 64, weak and quick, although less feeble than the night before. An enema of catnip tea was directed, with anodyne if required.

On the 18th, at 1½ o'clock P. M., he complained of pain in the abdomen on motion, with a sensation of internal heat, and great weakness. The tongue was moist and whitish; the skin natural; pulse 76, rather fuller, though weak, soft, and irregular in rhythm and force, with an occasional intermission. Stomach irritable; he had vomited in the course of the night, by which the oozing from the wound was increased. No pulsation could be detected in any of the arteries of the limb; its temperature was the same,—the purple patches on the foot more marked.

On pinching the skin of the leg to ascertain if it possessed the slightest sensibility, the cuticle gave way under the fingers.

On the 19th, at 1½ P. M., the patient no longer complained of pain; his pulse was 78; soft, and less irregular; the limb was cold, insensible marbled in appearance, and vesicated at several points. There was much irritability of stomach, which a julep of ammonia and camphor had failed to relieve; weak wine-whey was substituted, which appeared to agree well.

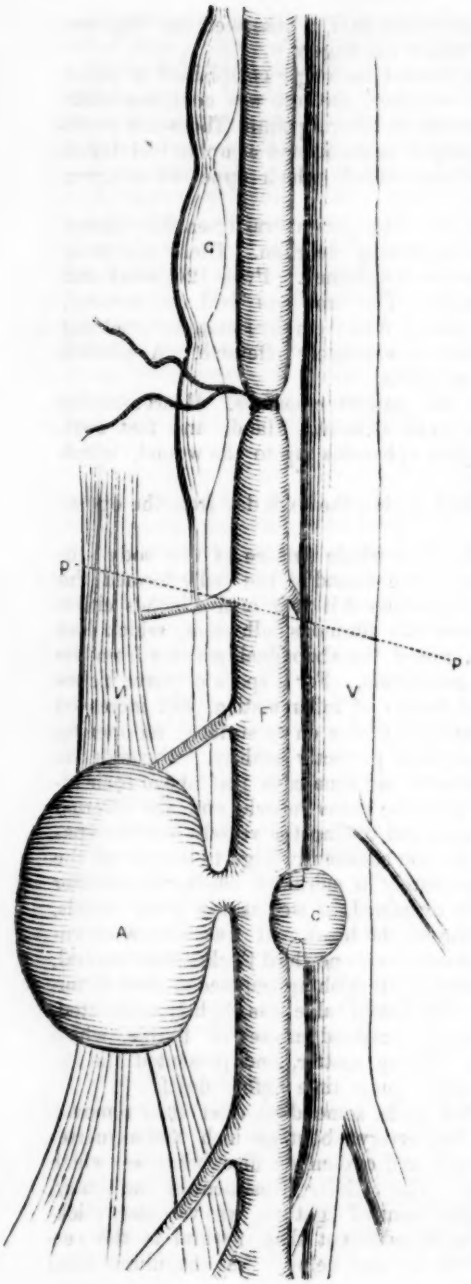
December 20th, 9 o'clock A. M. The patient was insensible except when aroused, and lay in a low muttering delirium. There was some jactitation; no hiccough; no tension of abdomen. Pulse 120, weak and irregular; tongue white and moist. The limb was livid and mottled, covered with bullæ containing bloody fluid; emphysematous crackling was felt on pressure, and its odor was extremely offensive. A solution of chloride of soda was applied on cloths.

On the 21st, at 1 o'clock P. M., patient comatose. Heart's action very weak and intermitting; no pulse at wrist. Hands and feet cold. The limb was in a state of complete sphacelus up to the wound, which was dry, black and gaping.

He died on the 22d, at 4 o'clock A. M., the sixth day from the operation.

Autopsy at 10 o'clock A. M. The whole surface of the body presented a very marked yellow tint. The wound of the belly formed the limit of the sphacelation above. I prolonged it four or five inches either way, and carefully breaking down the fibrinous adhesions, which had already acquired some firmness, raised the abdominal parietes from the peritoneum, and exposed this membrane. For a space of three inches around the wound it presented marks of inflammation, viz: increased vascularity, and an irregular coating of fibrine on its surface; on opening its cavity, it was found elsewhere to be perfectly healthy. Through the wound thus made, I divided the aorta and vena cava just above their bifurcation, and detaching them from the psoas muscle and the internal iliac, I cut through the crural arch, and tracing the vessels into the spacelated mass below, removed a portion sufficiently large to include all the disease, which was placed immediately in spirits to harden for further examination. The other viscera examined, as well as the great vessels, were healthy, with the exception of the heart. It was somewhat enlarged; the walls of the left venticle were one third thicker than natural, and the *columnæ carneæ* presented a yellowish appearance at their termination in the *chordæ tendiniæ*. The mitral valve was slightly contracted. All the four cavities of the heart contained masses of fibrine, which was generally quite free from coloring matter, and presented the appearance of having been deposited some time before death.

On examination of the morbid parts, some days after their removal, the ligature was found upon the artery about an inch and-a-quarter above the origin of its epigastric and circumflex iliac branches, which occupied their normal position. The cellular investment of the artery, which was disturbed only at the point of ligature, was vascular, thickened by effused fibrine, and more adherent than natural to the vessels, for some little distance above and below. A coagulum filled



the artery from the ligature to the bifurcation of the primitive iliac. On the outer side of the artery, in the vicinity of the ligature, were three lymphatic glands, inflamed and enlarged to three times their natural size.

Below Poupart's ligament, over the course of the pistol ball, the tissues were found to be considerably thickened and indurated. On carefully isolating the vein, artery, and anterior crural nerve, the following appearances presented themselves: an inch and-a-quarter below Poupart's ligament, and half an inch above the origin of the *profunda*, on the external side of the common femoral artery, and lying upon the nerve, was a true pouched aneurism, the size of a Madeira nut, communicating with the artery by a jug-like neck as large as the orifice of the profunda. Immediately opposite to the orifice of the aneurismal sac, was a preternatural opening in the artery, leading directly into the femoral vein. This opening was somewhat larger than the caliber of the artery. Over the abnormal communication between the femoral vessels, and involving apparently the walls of the vein as much as those of the artery, was a second true aneurismal pouch the size of a rifle bullet, communicating with the vessels by a neck as

large as the epigastric.* The walls of both of these aneurismal sacs contained a very considerable amount of calcareous matter, and in the cavity of the larger tumor were found layers of stratified fibrine. The walls of the vein between the seat of the disease and Poupart's ligament, were thicker than those of the artery; below the disease the coats of the artery were thinner than natural. The vessels were otherwise normal. The anterior crural nerve was thickened, enlarged, and closely adherent to the larger aneurismal tumor. It is proper to mention that, before the operation, Dr. Mott expressed the opinion, that a communication probably existed between the artery and vein.

The occurrence of arterio-venous aneurism in the upper part of the thigh is rather rare; Hennen mentions a case following the wound of a musket ball, and Hodgson an instance in which it was produced by a thrust from a red-hot poker; the remaining eight or ten cases on record were caused by punctured wounds by a cutting instrument.

It is a question of pathological interest as to the manner in which the disease was produced by the wound of the pistol ball. I cannot think that the artery was opened by the ball at the time of the wound, although the vein apparently was. From the evidence of the patient it could not be ascertained that the blood lost at the time of the accident was arterial in its character; from the readiness with which it was arrested by simple pressure, it would seem to have been entirely venous. A portion of the wall of the artery, as well as of the vein, was, most probably, deprived of life by the ball in its passage; and, on the separation of the slough, the arterial current forced a passage into the vein. There was no hemorrhage, either externally or into the cellular tissue of the limb at this time; and the external wound shortly healed. The arterial coats had however undergone so much alteration, that in a little time they yielded, and the formation of the true aneurism, was the result.† We have thus in this instance the singular coincidence of true aneurism, from disease of the arterial coats, with a communication existing between the artery and vein.

A question now arises of more importance: what was the cause of the gangrene of the limb which followed the ligature of the artery?

The patient was young, moderately vigorous, of healthy constitution; and the disease had existed for two years and a half. The slight mitral contraction, and hypertrophy of the left ventricle, can hardly be taken into account. Under these circumstances, the danger of gangrene after ligature of the main arterial trunk of a limb, for simple aneurism of mo-

---

* The wood-cut will convey a more difinite idea of the position and relation of the parts implicated in the disease:—The dotted line *pp*, represents Poupart's ligament; F, the artery; V, the vein; N, the anterior crural nerve; A, the larger aneurismal tumor; C, the smaller tumor, beneath which the abnormal opening between the vessels is situated; G, one of the enlarged lymphatic glands.

† That the aneurismal tumors involved the coats of the arteries alone there is no doubt; and in the larger tumor the internal lining of the artery is distinctly continuous with that of the sac. The fact is further confirmed by the bony deposit existing in the walls of both tumors; bony transformation being a rare consequence of inflammation except in the arterial tissue.

derate size, is not great.* I am forced to the conclusion that in the present case, the unnatural communication existing between the vein and artery was the main cause of its unfortunate issue; and this conclusion I shall attempt to justify.

In reviewing the surgical history of arterio-venous aneurism,† with the view of determining the results which have followed the application of the Hunterian operation to its cure, I find a singular discrepancy existing between the opinions of authors and the recorded results of practice.

Hodgson, (*Diseases of Arteries, etc. Lond.*, 1815, *p.* 507), thinks it "probable that tying the artery above the tumor would effect the cure of this disease in the same manner as it does that of circumscribed aneurism—especially where the tumor is increasing," and adds that he is not aware that the operation has been tried.

About this time, Mr. Atkinson of York, (England,) tied the brachial artery for a large and increasing aneurismal varix, and mortification of the limb ensued. (*S. Cooper, Surg. Dict., Lond.*, 1839, *art. Aneurism.*)

Scarpa, (*on Aneurism, Wishart's translation, Edin.*, 1808, *p.* 397), expresses the opinion that the surgeon should "not hesitate to perform the operation (of Anel,) if the aneurism is still small and circumscribed."

Physick, shortly afterwards, tied the femoral artery for an arterio-venous aneurism below the knee; the limb mortified, and the patient died from hemorrhage. (*Dorsey's Surgery, Philad.*, 1813, *vol.* 2*d*, *p.* 210.)

Liston, in recent cases, advocates the Hunterian operation, and, at the same time, acknowledges that he has found it unsuccessful in more than one instance. (*Prac. Surg., Lond.*, 1847, 4*th Ed.*)

Miller says, "if the disease have existed long, and be of large size, etc., it may be treated on the Hunterian principle." (*Princ. Surg.*, 1*st Am. Ed.*, *p.* 342.)

Mott prefers the Hunterian operation, except in recent cases, and in the least serious form of aneurismal varix. (*Velpeau's Oper. Surg., Am. Ed. vol.* 2*d*, *pp.* 292–3.)

Dupuytren decides, that "although reason would induce us to employ the operation of Anel in this disease, experience has demonstrated its inefficiency." (*Leçons Orales, t.* 3*e*, *p.* 145, 2*e Ed.*)

Breschet, (*sur les Anévrysmes, Mem. de l'Acad., t.* 3*e*,) reports two cases in which he employed the simple ligature of the artery without success; and also two cases with a similar result operated upon by Dupuytren, one of which terminated in gangrene. He expresses the following opinion: "La ligature du tronc artériel, d'après la méthode de J. Hunter, appli-

---

* Out of 155 cases of ligature of the external iliac, of which I have a record, gangrene of the limb has followed the operation for simple aneurism, in 16 cases. Dr. Norris (Table showing the mortality following ligature of iliac arteries, Am. Jour. Med. Sci., Jan., 1847,) gives 9 instances of gangrene occurring under similar circumstances, out of 118 cases

† For the sake of brevity I employ the term *arterio-venous aneurism* as including the different varieties of disease involving an abnormal communication between an artery and vein, as, in the present view of the subject, this circumstance is alone of importance.

quée aux anévrysmes variqueux, est donc dangereuse, la plus souvent funeste, et le moindre de ses inconvéniens est d'être insuffisante."

Lisfranc, (*de l' Oblitération des Artères, etc., Paris*, 1834); Begin, (*Nouv. Elém. de Chir. t. 2e, p. 75, 2e éd.*); Boyer, (*Mal. Chir., t. 2e, p. 192*); Malgaigne, (*Méd. Opér., Paris*, 1837, *p.* 204); Guthrie, (*Dis. of Arteries, Lond.*, 1830, *p.* 334); John Burns, (*Princ. of Surg., v.* 1, *p.* 486) Syme, (*Path. and Prac. Surg., Edin.*, 1848, *p.* 292), and Park, (*Med. Facts and Obs. vol. 4th, p.* 111), give a decidedly unfavorable opinion with regard to the Hunterian operation. S. Cooper, (*Surg. Dict., loc. citat.*) and Velpeau, (*Med. Oper., Paris*, 1839, *t. 2e, p.* 186), express themselves with much hesitation as to its propriety. A more recent writer, (*Rodrigues, Obs., etc., sur l'anév. variqueux. Gaz. des Hôp., Jan.* 1841) thinks that if accompanied by compression, applied to the tumor, "the operation of Anel may hereafter become more successful."*

It is worthy of remark that neither Astley Cooper (*Surg. Lect., Phil.* 1826, *vol. II.* p. 37,) nor Colles, (*Surg. Lect., Phil.* 1845, *p.* 197,) had encountered a case of this disease which seemed to require operative interference.

Most of the authorities who oppose the application of the Hunterian principle to the cure of arterio-venous aneurism, base their objections to the operation upon its inefficiency; inasmuch as experience has shown that the disease almost invariably returns after its performance. The danger of gangrene is only alluded to incidentally. Breschet recognises it, and attempts an explanation of the mode in which it occurs. S. Cooper (*ut supra*) adopts Breschet's rationale, and bases his unfavorable opinion of the operation upon it, and a case of Sir Charles Bell, which was followed by gangrene. The author of the article on aneurism, in the Cyclopædia of Surgery, asks the question why gangrene of the limb occurs more frequently after ligature of its main arterial trunk for this disease, than for the other varieties of aneurism; but he leaves it unanswered; and the question of the propriety of the operation, unsettled.

Breschet accounts for the occurrence of the gangrene in the following manner: He asserts (*loco citato*, pp. 209, 252,) that he has seen in the living body, (during an operation upon a case of arterio-venous aneurism,) the alternate exchange of contents carried on between the artery and vein through the unnatural opening, by means of which a portion of the venous blood is carried again to the limb by the artery, and an equal amount of arterial blood is returned unused to the heart, by the vein. The limb, thus habitually deprived of a portion of its arterial supply, loses proportionally its size, strength, temperature, and sensibility; and moreover, according to our author, its arteries below the seat of the disease, invariably undergo alteration—becoming larger in their caliber, thinner in their walls, and much more tortuous in their course, thus resembling veins. Premising these facts, which are considered as demonstrated, if in this condition of the limb, its main artery is tied between the disease and the heart, the arteries below the disease, from their changed condition, being unable to contract upon the diminished quantity

* A case is recorded (London Lancet, Oct, 1834, p. 144,) of varicose aneurism at the bend of the arm, in which the communication with the vein was obliterated by pressure, and, the disease being thus reduced to a simple circumscribed false aneurism, the brachial artery was tied successfully by Mr. Lloyd.

of blood conveyed into them through the collateral channels, the circulation is not carried on, and the vitality of the limb, already lessened, is thus entirely annihilated.

Thus it appears that Breschet attributes the gangrene solely to the altered condition of the arteries of the limb below the seat of the disease.

Now this change in the arteries, although it undoubtedly exists, as in the cases reported by Breschet, is not admitted by some authors to be of uniform occurrence, in fact in the present case it was by no means well marked. It seems to me, that in addition to this explanation, there is another circumstance to be taken into account, which is not altogether without its importance. According to Breschet's evidence, when a communication exists between an artery and a vein, a portion of the arterial current passes into the vein at each systole of the heart, and during its diastole, a counter-current of venous blood overflows into the artery. Now, when the arterial current is arrested by a ligature, the systolic impulse conveyed through the devious collateral channels is barely perceptible, if it exist at all, by the time that the blood has reached the main trunk below the ligature, and therefore, the current through the vein not being interrupted, we may readily infer that it would overflow into the artery through the abnormal opening more freely than before, as it meets with no opposing current from the artery. Thus the arterial blood received by the limb through its anastomozing arteries, already perhaps deficient in quantity, and degenerated in character,* is still farther depraved by constant and free admixture with the effete venous blood of the limb.

Hence I would infer that, in the present case, the circumstance of the abnormal communication was, probably, the principal cause of the gangrene. Prof. Horner suggests, (Am. Jour. Med. Sci., Jan., 1841,) that the arterial blood brought into the limb under these circumstances finds its way back to the heart so much more readily through the unnatural opening, than by its ordinary route through the capillaries, that it is thus deprived of a sufficient arterial supply.

Thus far for the manner in which gangrene is brought about; it remains to be determined in what proportion of cases of arterio-venous aneurism, treated on the Hunterian principle, it occurs; and in what class of cases it is most to be dreaded. The only mode of settling this question is by investigating the records of surgical practice, and drawing conclusions from the results of actual experience. Dupuytren's conclusion with regard to the treatment of this disease, at the time it was made, was no doubt as correct, as it is unsatisfactory: "La chirurgie est riche en méthodes, et en procédés opératoires, mais elle est pauvre en faits bien observés sur lesquels on puisse établir la preëminence ou l'infériorité de ces méthodes et ces procédés." May there not have been accumulated by this time sufficient evidence to justify us in advancing one step farther in our knowledge of this intricate subject.

The following cases, derived from sources within our reach have been thrown together in a tabular form for the purposes of analysis.

---

* The dark color and continuous flow of the blood in hemorrhage from the distal extremity of a wounded artery, demonstrate that it has already lost some of the qualities of arterial blood, and that it is certainly not as well able to support the vitality of a limb, as that received directly from the heart.

TABLE OF CASES SHOWING THE RESULT OF THE HUNTERIAN OPERATION IN ARTERIO-VENOUS ANEURISM.

No.	SURGEON.	WHERE RECORDED.	SITUATION OF DISEASE.	DURATION OF DISEASE.	ARTERY TIED.	CONSEQUENCES OF OPERATION, AND REMARKS.	FINAL RESULT.	PERIOD OF DEATH.
1	Atkinson.	S. Cooper, Surg. Dict., Art. Aneurism, p. 191.	Bend of arm.		Brachial.	Gangrene of limb.		
2	Chas. Bell.	Idem.	Bend of arm.		Brachial.	Gangrene of limb.	Death.	
3	Physick.	Dorsey's Surg., Philad., 1813, vol. 2d, p. 210.	Below the knee.		Femoral.	Gangrene of limb. Hemorrhage.	Death.	
4	Collier.	Med. Chir. Trans., vol. vii., part 1st, p. 136.	Upper part of thigh.	2 months.	Ext. Iliac.	Gangrene of limb.	Death.	4th day.
5	Perry.	Idem., vol. xx.	Near the knee.	4 years.	Femoral.	Hemorrhage.	Death.	6th day.
6	Dupuytren.	Breschet sur les Anevrysmes; Mem. de l'Acad. Roy. de Med. t. iii. p. 223.	Upper part of arm.	2 years.	Brachial.	Disease re-appeared in a few days.	Amp. of limb.	
7	Dupuytren.	Idem., p. 226.	Lower third of thigh.	6 months.	Femoral.	Gangrene of limb. Hemorrhage.	Death.	28th day.
8	Breschet.	Idem. p. 212.	Bend of arm.	3 months.	Brachial.	Disease returned in a few days. Artery afterwards tied above and below the disase.	Cure.	
9	Breschet.	Idem., p. 219.	Bend of arm.	8 days.	Brachial.	Same results.	Cure.	
10		Cloquet; Pathol. Chirurg., p. 85.	Bend of arm.		Brachial.	Disease returned. The limb became atrophied, the fingers livid, and the nails fell off.	Amp. of limb.	
11	Morrison.	Am. Jour. Med. Sci. vol. xxii, 1838.	Groin.	11 years.	Ext. Iliac.	Gangrene of limb.	Death.	3d day.
12		Hennen; Mil. Surgery, Edin., 1820, p. 183.	Groin.	a few weeks.	Ext. Iliac.	Gangrene of limb.	Death.	In a few days.
13	Baroni.	Archives Generales, 1840.	Upper part of thigh.		Ext. Iliac.	Return of disease on 5th day; partial gangrene of limb; secondary Hemorrhage; ligature of Femoral.	Death.	54th day.
14	Lallemand.	Gaz. Med., 1841.	Upper part of thigh.	5 years.	Femoral.	Hemorrhage. Ext. Iliac afterwards tied.	Death.	5th day.
15	Lawrence.	Ormerod; Clin. Surgery, London, 1846, p. 145.	Upper third of thigh.	13 weeks.	Com. Fem'ral.	Gangrene of limb; amputation.	Survived.	
16		Lond. Med. Gaz., vol. xxvii., p. 143	Bend of arm.	22 days.	Brachial.	Extensive swelling of limb; gastric symptoms; diarrhœa.	Death.	21st day.
17	Chelius.	Gaz. Medicale, 1843, p. 530.	Rt. temporal region.	14 months.	Rt. prim. Car.	Return of disease after third day.		
18	Mott.		Upper third of thigh.	2½ years.	Ext. Iliac.	Gangrene of limb.	Death.	6th day.
19	Alquié.	Velpeau; Med. Oper. t. ii., p. 186.	Bend of arm.		Brachial.	Hemorrhage; artery tied a second time; hemorrhage returned repeatedly; finally compression effected a cure.	Cure.	
20		Roux; Gaz. Med., 1837, p. 347.	Bend of arm.		Brachial.		Cure.	
21	T. Harris.	Prof. Horner; Am. Jour. Med. Sci., Jan. 1841, p. 74.	Upper part of thigh.	3 months.	Com. Fem'ral.	Gangrene of limb; return of disease.	Death.	31st day.
22	Baynham.	Am. Jour. Med. Sci., Oct., 1841, p. 480.	Middle of the thigh.		Femoral.	Hemorrhage; disease returned.	Survived.	

In addition to the cases included in the table, there are two others recorded, in which the result was unsuccessful: one by Portal, (*Chir. Chirurg.* t. i., p. 203,) and another by Brown, (*Velpeau, Med. Oper.* t. ii., p. 186.)

Thus we have 24 cases of arterio-venous aneurism treated by ligature of the artery between the disease and the heart, in which 23 were unsuccessful, and one only is said to have been cured. And this solitary case of cure is the only one included in the table whose authenticity is at all equivocal. It was that of a man exhibited to Roux as a surgical curiosity, at Milan, in Italy, during his visit to that country in 1836, and reported by him, on his return, to the Academie Roy. de Med., of Paris. Velpeau (*ut supra*) expresses a doubt as to whether the disease was in reality arterio-venous aneurism.

In the 22 cases, death followed, as a consequence of the operation, in 12; the result of one case is doubtful, and 9 survived. Of the survivors, one is the case of cure; three underwent amputation; and four were subsequently cured by other means.

In the 12 fatal cases, 6 died from gangrene; 2 from hemorrhage; in 3, both gangrene and hemorrhage contributed to the fatal result; and one perished from constitutional irritation.

In 9 of the 22 cases, the brachial artery was tied for the disease occurring in the upper extremity. Of these, one is the case of cure; two certainly died, and a third was probably fatal, (Mr. Atkinson's.) Of the remaining 5, two underwent amputation, and 3 were subsequently cured by other means, viz., two by ligature of the artery above and below the disease, and the third by compression, after repeated hemorrhages. In the upper extremity gangrene occurred twice, and in a third instance, (10) the condition of the limb approached so nearly to gangrene that amputation was performed. In the instance in which the common carotid was tied, the disease was ultimately cured by the operation of Kiesler.

In the 12 cases of the disease seated in the lower extremity, the external iliac artery was tied, primarily, five times, and gangrene followed in all. The common femoral was tied twice; gangrene followed in both. The femoral artery was tied five times; gangrene followed in two of these cases, and hemorrhage in all. In one instance, (14) the external iliac was tied for hemorrhage following the ligature of the femoral, without preventing a fatal result. In fact, the only cases in which death did not follow the operation in the lower extremity, are those of Baynham, whose patient survived after a very serious secondary hemorrhage, and Lawrence, who had recourse to amputation during the progress of the gangrene.

The hemorrhage in these cases is due, beyond a doubt, to the altered condition of the arteries consequent upon the disease, and this is a circumstance which has not received the degree of attention which its importance demands. It furnishes an additional argument against the Hunterian operation in this disease, and is calculated to interfere materially with the success of any operative process undertaken for its cure. It occurred in 7 out of the 22 cases included in the table, and in 5 it was more or less directly the cause of death.

In the sound and judicious remarks appended by Dr. Norris to the

notice of Lallemand's case (14), in the Am. Jour. Med. Sci., Oct., 1841, he asserts that, "all reason and experience on the subject go to show that no good result can be expected from the application of a ligature above the tumor in this disease."

Are we not fully justified by the facts thus set forth, with regard to the ligature of the artery on the Hunterian principle in arterio-venous aneurism, in arriving at the conclusion that the operation, not only promises no good result, but that its performance is absolutely unjustifiable?

In confirmation of this conclusion I am happy to have it in my power to state, that Prof. Mott, in view of the results shown above, admits its entire correctness, and has recently given an opinion adverse to that expressed by him in the Am. Ed. of Velpeau's Oper. Surgery, already quoted.

ART. IV.—*Remarks on Animal Poisons; with Cases.* (Communicated in a Letter to the Editor.) By NELSON NEVISON, M. D.

DEAR SIR,—Thinking that some of the facts connected with the following cases, though by no means *new*, might not be wholly devoid of interest, I have concluded to transcribe them. If they are of any worth they are at your disposal. In the autumn of 1844, I had under my care a patient, who had been for a number of weeks laboring under a low form of typhoid fever, from which he had nearly recovered, when he was suddenly taken with a severe and fatal relapse, the chief characteristics of which were, great prostration of strength, *colliquative sweats*, and diarrhœa. While attending this patient, I was seized with a moderately severe pain in one of my fingers, (there had been a slight scratch upon it for several days, but it was altogether so trifling as to attract little attention. The pain seemed to proceed from this point, which very soon became considerably swollen, with much redness; during the day the pain extended slowly up the hand and fore-arm, and at evening a red line, proceeding from this point, was visible as far as the wrist. Not being altogether pleased with its behavior, and unable satisfactorily to account for it, I was not entirely without apprehension that the absorbents might be engaged in conveying some kind of morbific matter into the system, and my suspicions were not a little strengthened by the recollection that while visiting my patient the previous evening, I assisted the nurses somewhat in applying some stimulating frictions to the algid limbs of my patient, which were at the time bathed in a most *profuse perspiration*.

On the following day the redness and pain extended still further up the arm. Being, however, actively engaged at the time, little notice was taken of it.

On the third day, there was considerable swelling, pain, and tenderness of the glands in the axilla: the red line extended the entire length of the arm. By the fourth day, the symptoms about the finger began to subside; pain in the axilla much increased. Fifth day, no pain in the finger; the red line slowly receding up the arm. From this time to the eighth day, the symptoms were principally confined to the axilla, steadily increasing. On the eighth day, the swelling, pain, etc., in the axilla be-

gan to subside. During this day I had a severe headache, great sensation of weariness, occasional rigors, pain in the loins, an almost irresistible disinclination to exertion of any kind, so that it was with the greatest difficulty that I attended to my professional duties.

On the following day the symptoms in the axilla had nearly subsided. The pain in the head and loins had extended to all parts of the body. Chills and hot flashes quickly alternating, giddiness, nausea, trembling, unsteadiness in all kinds of muscular movements, great weakness, tongue slightly coated with a yellowish fur, pulse not materially changed, somewhat irregular, soft and compressible. Symptoms all materially increased towards evening.

On the following morning, the swelling in the axilla had entirely disappeared. There was well marked *remission* of all the symptoms. This, however, was of but short duration, the symptoms of the preceding day returned with increased violence, with this difference, that there was less of chilliness, and the aching pain, that was before diffused throughout the body, seemed to be concentrated in the head; and, although it brought no relief, I could not resist the inclination to be constantly *rolling* the head from side to side, it really seemed *heavier* than all the rest of the body. Cold applications were very grateful. The treatment up to this time, consisted in little else than freely evacuating the alimentary canal. First by a gentle emetic, (during the operation of which a general diaphoresis was induced,) and afterwards by a brisk mercurial purge.

During the three following days no material change occurred, except that remissions were less and less observable, and the symptoms on the whole slightly augmented in severity from day to day; the pain in the head became less acute, but was followed by an indescribable sensation of *heaviness;* and although it was kept constantly elevated, the sensations conveyed the impression that it was yet much *lower* than any other part of the body, and it appeared that its great *weight* was constantly drawing the rest of the body not upward, but *downward* after it; a sensation of drowsiness and an inclination to sleep was more and more perceptible, pulse about 100, tongue heavily coated, scarcely any thirst, *appetite but little impaired.* Blisters were applied to the nape of the neck, and extremities, and efforts were made to secure the revulsive effects of mercury.

The next day (being the seventh day of the fever, or the fourteenth from the commencement of the pain in the finger) was marked by the occurrence of a most *copious diaphoresis.* This was regarded by a professional friend as a favorable indication. He also thought he discovered indications of the specific influence of mercury on the system, and by his advice its further administration was omitted. The profuse sweats continued throughout this and the following day, but contrary to the predictions of my friend, an improvement in the symptoms did not follow, their effect was to produce great and even alarming debility; this debility seemed in many respects analogous to that which follows copious and repeated venesections, the surface and extremities were cold unless warmed by artificial heat, which in its turn increased the perspiration. The sweats communicated an *oily* feel to the surface, it seemed that all the adipose substance in the body was being dissolved and passing through the pores of the surface. After two days the sweating gradually subsided, but the case had materially changed; the symptoms

were now preëminently *typhoid;* pulse 120 to 140, tongue heavily coated with a dark brown fur, teeth covered with sordes, the skin retained its *oleaginous* feel. The nervous system was remarkably active, great intolerance of light and sound, great watchfulness. The mental faculties exceedingly active, thoughts of the most beautifully sublime and brilliant character followed each other in rapid succession. To investigate a subject the most dark and inexplicable, comprehend its mysteries, and dismiss it for another still more complex, was the work of a moment, no obstacle too great to be readily overcome, no problem too abstruse to admit of a speedy solution. And thus for hours and days, the thoughts continued to travel with but slight intermissions, with the speed of lightning, manifesting little or no disposition to become weary.

This state of things continued for about another week, during which time the treatment was given up to two of my professional friends, who certainly are not obnoxious to the accusation of a lack of orthodoxy, for the alpha and omega of their creed, calomel and opium were most freely invoked, the result of which was, that at the end of the week I was most horribly salivated; whether this did good or harm it is not now my purpose to inquire, suffice it to say that the cold surface now gave place to a violent mercurial fever, and the exhausting sweats to an equally exhausting drain from the salivary glands. Two weeks of this and all superfluous vitality had been disposed of. Two weeks more of vascillation between brandy and quinine on the one hand, and almost entire insensibility on the other, brought me to a state of convalescence, and at the end of three months from the time of the attack I was again able to leave the room.

Perhaps it may be well to state in this connexion, that a sister of the writer who was with him during the early part of his illness, was at the end of two weeks attacked with a disease in most respects similar to his, but was in all respects much milder, and lacked almost entirely the *exhausting sweats.* As soon as she was attacked she went home; about two weeks from that time two other members of the family were attacked; these cases were in all respects similar to hers but milder. In about two weeks more three other members of the family were attacked and passed through a mild course of fever.

My object being merely to give the facts, I forbear comments, but would merely state one or two points.

1st. That the disease was in the first place communicated by *innoculation,* I think can scarcely be doubted.

2d. Whether the copious and long-continued *sweats* which characterized my case may have been influenced by the contagion having been received from the *perspiration* of my patient, is not quite so clear.

3d. The facts in regard to the other cases would seem to favor the idea that the *contagion* may lose much of its virulence, or become greatly modified in passing through a number of individuals.

ART. V.—*Remarks upon the Use of Antimony* (*Tart. Ant. et Pot.*) *in the Pneumonia and Bronchitis of Children.* By H. N. BENNETT, M. D., of Bethel, Ct.

No article of the materia medica has longer or more deservedly maintained a reputation in the treatment of acute pneumonic affections than antimony. It is not the design of the present paper to detract from its merits, but to inquire in what circumstances the use of this article should be avoided or discontinued in the treatment of the pneumonia and bronchitis of young subjects, particularly of those from one to six years of age. The tendency, at this period of life, to gastro-enteric irritations and inflammations is so great, that every plan of medication directed upon the alimentary mucous membrane, in such a manner as to excite the action and increase the secretions of the intestines, is accompanied with more or less danger to their integrity. It is for this reason that purgation, as an unique method or as the basis of treatment, is scarcely applicable to any of the diseases of early life. The physiological differences between the gastro-enteric mucous membrane of early and adult age, are unquestionably accountable, in a great degree, for the different therapeutic effects of those medicines which exert their principal influence upon this membrane. In childhood it possesses a greater degree of vascularity, and is more easily excited to increased secretion; it is more sensitive to impressions made upon it, and more readily communicates morbid irritations to the encephalic nervous centres; it is less tolerant of coarse, irritating or acrid ingesta, and their effects are sooner manifested in the disturbance or destruction of its functions; in short, it is more highly organized and *tender* than the mucous membrane of adult age.

The effects of emetic tartar upon the alimentary canal are well known. The first evidences of its action are nausea, vomiting and purging, accompanied by great prostration of muscular power and blanching of the cutaneous surfaces, and these effects are nearly the same in early and adult age. If the vomiting which occurs from the first few doses of the medicine, ceases after a continuance of its exhibition, it is not so generally the same, according to my experience, with its downward effects in children. Purging once excited by the use of this article, I have frequently seen exaggerated to a diarrhœa from the exhibition of even the smallest doses, and I have established it as a general rule in my practice, to discontinue the use of antimony as soon as there is any unusual looseness of the bowels, especially when the discharges become thin, colorless and more resembling serum than fæces, considering the latter as evidence of the irritating effects of the medicine upon some portion of the enteric mucous membrane. To persevere in the administration of antimony after these effects are produced, is, in my opinion, to hazard the safety of your little patient, by inducing an enteritis which may prove much more troublesome than the original disease, and will at least entail a protracted convalescence. An immoderate looseness of the bowels has also no curative effect upon the inflammation of the bronchial mucous membrane, or of the parenchymatous tissue of the lung itself, but rather the reverse. The sympathy existing between the mucous membranes of the air-passages and of the digestive apparatus, is well known. A bronchial mucous flux, or even a purulent expectoration, is suddenly checked by a diarrhœa.

Thus the natural relief of the inflamed bronchial membrane, or of the hepatized lung, to wit, an increased mucous or a purulent secretion, is retarded or suspended by the continual drain from the bowels, the respiration continues difficult and hurried, the hæmatosis is farther perverted, and the powers of life prostrated by the loss of integrity in the functions of the digestive tube.

The emetico-cathartic effect of the first doses of antimony, I consider by no means prejudicial in the treatment of the pneumonic affections of children, and I wish to be understood that the occasion for suspending its use, is an established diarrhœa, which I have found it difficult to control while continuing the administration of the medicine. The addition of a few drops of the sol. morph. to every third dose of antimony *may* restrain its purgative effects upon the alimentary canal, but the constant drowsiness or stupor induced as a consequence, is perhaps as dangerous as the diarrhœa, inasmuch as it compromises the cerebral functions, a thing always to be avoided in children.

There is but one circumstance which can render an excuse for the continued exhibition of antimony after the production of diarrhœa, and that is when the bronchial flux is excessive and threatens to suffocate your little patient by its quantity. I prefer, even in this case, the administration of simple cathartic medicines, and an occasional emetic dose of antimony, to any other method; for when the bowels have become once irritated by tartar emetic to the production of diarrhœa, it is often difficult to obtain an emetic effect, and we thus lose an important auxiliary in the treatment, which remedies, to a certain extent, the want of expectoration which is almost universal in children.

The best method which I have tried, of exhibiting antimony to children, with the view of obviating its irritating effects upon the stomach and bowels, is to make the solution in some mucilage, and add to each dose a few drops of spts. nitre, while at the same time the chest is to be completely enveloped in a flannel moistened with a warm infusion of hops. I think I have had sufficient experience to warrant me in asserting that children tolerate antimony in this manner far better than when given alone and without the application made to the cutaneous surface; and I am also positive that I have seen acute bronchitis in particular yield to this treatment in a remarkably short period of time.

The effects of antimony upon the alimentary canal, are more marked at certain seasons of the year, and during certain epidemic constitutions. According to my experience, it is borne with less tolerance during the summer season, when various causes combine to render the digestive mucous membrane more irritable and disposed to phlegmasiæ. It is true that pneumonic affections more rarely occur at this period of the year, but it is equally true that when they do occur, they are accompanied with much greater gastric irritability than is usual in the same diseases in the colder months. During the summer season I have many times found it impossible to establish the tolerance of antimony by the most careful management, vomiting would be reproduced by the smallest doses, and a gastro-enteritis follow upon a perseverance in its use. It has been my practice for some years, in those cases which manifested much gastric irritability to avoid the exhibition of emetic tartar altogether and substitute simple refrigerant drinks, thus falling back upon a mere

expectant treatment, rather than irritate my patient by more powerful means. The pneumonia and bronchitis of summer and the early fall months, if unattended with complications, are much less dangerous and run their course more rapidly than in the winter season, and this should form a strong reason for proscribing any medication which may involve other organs and superadd a phlegmasia which will increase the danger of the patient.

Certain epidemic constitutions prohibit the use of antimony. It is not long since I witnessed an occurrence of this kind. During the last spring, soon after the decline of the epidemic erysipelatous fever which prevailed in this town, I had occasion to treat several cases of pneumonia among children, in which the exhibition of antimony was uniformly attended by a troublesome diarrhœa with alarming prostration. I could not induce a tolerance of this medicine, and did not prescribe it at all after the first few cases. This peculiar intolerance of tartar emetic, was probably owing to an unusual irritability of the alimentary mucous membrane, and a disposition to the diffuse inflammation which had characterized the epidemic of the winter. The occurrence of epidemic constitutions forbidding the use of antimony has been observed by some European writers, and is hinted at by MM. Barthez and Rilliet, in their invaluable work on the diseases of children.

The conclusions at which I have arrived in reference to the use of antimony in the pneumonic affections of children, may be summed up as follows:—

Young subjects are not as tolerant of tartar emetic as adults, owing to the greater irritability of the gastro-enteric mucous membrane; and its administration should be modified to accommodate this condition.

The exhibition of this medicine should be discontinued whenever diarrhœa takes place, especially if the alvine evacuations are thin, colorless, destitute of fæcal smell and consistence.

The tolerance of antimony is less during the summer and first fall months, and it should be given with caution, or perhaps avoided.

Certain epidemic constitutions forbid its use altogether, but these are only to be suspected by a trial of the medicine, and the observation of its effects upon a number of cases, in which it will uniformly produce troublesome symptoms and complications.

ART. VI.—*Remarks on the Mode by which Cholera is propagated; being an Attempt to reconcile the Conflicting Opinions of Medical Writers in relation to its Contagious or Non-contagious Character.* By WM. H. MACNEVEN, M. D., of New-York.

SETTING aside the first origin of epidemic or pestilential cholera, the question which has occupied the attention of medical men since the occurrence of that event, has been, the mode by which the disease is propagated so extensively over the globe? Yet, to this time, whatever views have been set forth to explain the mode of its propagation, those by whom they have been advanced, have failed to reconcile their theories with *all* the facts which have been observed in its history. It is unnecessary to allude to the different meteorological and telluric influ-

ences to which its progress has been assigned. Many able and careful investigators of its history, declare that the difficulties encompassing the subject, on this ground alone, cannot be solved; whilst a large and most respectable class have settled down upon the belief that the pestilential cholera is propagated by human intercourse alone. So that the Sanitary Commissioners in Great Britain, in their last report, though they are opposed to the doctrine of contagion, "after the most careful investigations leave the point unsettled," and argue "that if such a reproduction did possibly occur, as an exceptional and unusual case, that practically it was unnecessary to regard it;"—and an able British reviewer writes, "that even if it be contagious, it cannot be localized and restrained by quarantines; that cholera does not require human frames for its transit and its multiplication: it is not bound in by lines, nor circumscribed by empty spaces; where it finds its conditions of existence, it can spread, although for miles no one is found whose frame may be the test of its powers."*

As it is my intention to advance certain views on this subject, which I think will account for the progress of this and other epidemics, without conflicting with the most anomalous facts in their history, I propose before entering upon the explication of these views, to survey, with as much impartiality as so limited a space will permit, such of these as have afforded the greatest ground for difference of opinion. The recent epidemic has offered no new features, and for the purpose proposed, there would be no advantage in referring to any other observations than those long known and well authenticated.

The contagionists assert, on one hand, that the epidemic cholera, when not originating spontaneously, can only be extended from its source to other places, through the intervention of persons or fomites infected by the pestilence; while the opponents of contagion deny that the epidemic is ever conveyed by persons or fomites infected with it, and that when not spontaneous in its origin, and strictly indigenous to the place in which it appears, it is due to a grand invasion of cholera atmosphere, wafted by the winds. Byrne, who in this country has written in support of the first opinion, says, "When we reflect on the utter impossibility of reconciling the progress of cholera with any one of the many hypothesis which the non-contagionists have devised, we cannot be surprised that they should have exclaimed, 'Its march is a mystery, and its ways are inscrutable!' To them it is indeed a mystery; for although it has been sixteen years travelling, and has in that time pervaded three continents, and crossed two oceans, they are still unable even to imagine how one step of this vast journey has been accomplished." He asks, and with good reason, in opposition to the idea of its absolute local origin in all places, "Why it should have travelled from Jessore to Moscow, from Moscow to Quebec, and from Quebec to New-Orleans, by one continuous chain of posts?" And he might have added, why make its appearance at these places successively in its route, and not cotemporaneously.

The same author observes: "From its origin at Jessore, it radiated as from a centre to a circumference, travelling north, south, east, and west,

* B. & F. Med. Chirurg. Review.

with various degrees of rapidity, until it reached the confines of Asia in every direction. As early as the year 1820, it reached Canton, 1500 miles east of Jessore, on the border of the Pacific; and had it travelled over that ocean with the same rapidity with which it crossed the Atlantic, it must have reached our north-western coast in 1822, and visited us not as an eastern, but as a western pestilence."

"It travelled from the sources of the Nerbudda into Bombay, in the teeth of a wind which prevails six months, night and day, with rather more rapidity than it did from Madras to Cape Cormorin, where a similar wind was in its favor."

Alluding to its atmospheric diffusion from a given place, he says, "the poison of cholera appears soon to become extinct, and thus it is exceedingly difficult to convey it to any great distance, unless it can be regenerated by new victims. So that in spite of the extensive intercourse between Europe and America, only two emigrant vessels, the brigs Carrick and Royalist, arrived at Quebec, on board which any passengers had died with cholera, the season it broke out in that city. And these two vessels, with the exception of the brig Brenda, at Baltimore, were the only vessels ever suspected of having conveyed this poison across the Atlantic. He, moreover, cites it as a striking fact in favor of the contagion of cholera, that in crossing a sea it always travels in a single line, and that line so narrow as to touch but a single city; whereas in crossing a continent it travels in thousands of lines.

It crossed the Atlantic, for example, in so narrow a line as only to have touched Quebec, whence it extended progressively over the country. If it had crossed the Atlantic in a *streak* of atmosphere, it must have passed over Nova Scotia and New Brunswick, before it reached Quebec; yet it did not visit those places until after it had ravaged the latter. On board the Carrick 42 deaths had occurred at sea, she arrived at Quebec the 3d of June, on the 6th, 7th and 8th, several cases of cholera appeared, and on the 9th, fifteen cases. This was the commencement of the epidemic cholera in the Western Hemisphere.

Another general fact on this point is alluded to by Kennedy: "Among the islands of the Indian Ocean it was observed that the cholera uniformly commenced its ravages in the sea-port towns," and he asks, "how can this extraordinary and uniform partiality which cholera exhibited in its choice of sea-port towns for its first inroad, be explained, unless on the principle of imported contagion?' The following among the instances noted by Byrne* is too strong to be omitted: "In Oct. 1832, the brig Amelia, with 108 persons on board, left New-York where the cholera was then prevailing, and on the 30th of the month, by which time 20 of those on board had died of cholera, she was stranded on Folly Island, about ten miles from Charleston, and in a day or two afterwards the disease began to spread among the inhabitants of that island. All access to the crew and passengers or the sick on the island, was rigidly interdicted by the authorities of Charleston. Folly Island forms a mere speck on the map of the Southern States, and yet that speck was the first and the only place for hundreds of miles round, where cholera appeared.

---

* Reported in American Journal of Medical Sciences for 1833, by Dr. S. H. Dickson.

It was, too, the only port of the Southern States, at which a vessel with cholera on board had ever arrived. The introduction of cholera into Key West was parallel with this."

It would be easy to cite numerous instances, reported by the same writer and others, where the first appearance of epidemic cholera in different *inland places* in the United States immediately followed the introduction of persons sick with the disease. The two following are particular instances of contagion recorded by Dr. Byrne:

"Before any case of cholera had appeared in Utica, an Indian belonging to Oneida Castle, twenty-three miles west of Utica, was hired by the master of a passing canal boat, to bury a man who had died of cholera on board. The Indian procured some others to assist him, and immediately afterwards he and five other Indians were all seized with the cholera and died. This report appeared in the Utica Sentinel some days after the occurrence, up to which time no other cases had occurred and the country remained perfectly healthy. Four miles from Baltimore, near a place called Govanstown, which, with its neighboring country, was perfectly healthy, lived a Mr. Nicholas Gill and a Mrs. Dewees in two adjoining frame houses; and distant from these about 100 yards was a stone house, occupied by a female (a relative of Mr. Gill,) and three children. A brother of Mr. Gill after spending three or four days in Baltimore, was, while on his way home, taken suddenly ill upon the road and stopping at the house of the latter, there died of cholera; this death took place on Friday. The lady from the stone house had waited on him during his sickness, and having no one to take care of the children during her absence from home, brought them into the sick room with her. On the second day (Sunday,) herself and the three children were seized with cholera and died before night. A black woman who assisted to nurse the sick, died the next day, and finally Mr. Gill's death, on the succeeding day (Tuesday,) completed the tragedy. Of those who died, not one, except the first, had visited any place where cholera was prevailing. Mrs. Dewees, living next door, prevented her children, five in number, from having any intercousse with the sick, and she visited the infected dwelling but once; they escaped, and no other case of cholera occurred either in Govanstown or its neighborhood during the whole season, except that of a colored man who visited the city during the prevalence of the disease. The houses in which these persons died were surpassed by none in the vicinity in cleanliness." An instance quite parallel to this appears among some of those recorded by Copland, it is the following: "M. Hubenthal states that a peasant having arrived from Arkatal, on the borders of Persia, at the village of Neskutshne, to visit an uncle, was seized the night of his arrival with the disease. The persons engaged in restoring the heat of the body by frictions, &c., four in number, were attacked on the following day, and three of them died. Precautions were taken by the police to arrest the progress of the pestilence in the village and it spread no further."

In opposition to the doctrine of the contagionists, I find it reported in the British and Foreign Medico-Chirurgical Review, for July, that the Sanitary Commissioners in England, assert that there is no evidence to prove that the cholera spread by the communication of the infected with the healthy. To prove this, instances are cited by them, in which

quarantines failed to arrest the progress of the disease; and also instances in which it broke out in too diffused and rapid a way to allow of the supposition of its having been communicated from man to man. They quote evidence to prove that in France and England, the cholera often originated in places to which it could not have been carried by human beings; and that it did not occur in some remarkable instances, in which large populous towns held free and daily intercourse with infected districts.

Thus, "in 1835, Marseilles suffered severely from cholera, while Lyons remained free, although nearly 10,000 inhabitants of the former city fled for safety to the latter. In 1832, Birmingham remained untouched, although at Bilston, eight miles distant, and having hourly communication with Birmingham, the disease was more severe than in any other town in England." There are recorded instances in India where parts of towns have escaped not isolated from the rest; and numerous instances where troops with the disease prevailing among them, have taken up their quarters in towns without the pestilence spreading, whilst in other instances it seems to have followed their ingress into one town on their route, and not into another.

Dr. Brown, in the article on epidemic cholera in the Cyclopedia of Practical Medicine, remarks;—"On the first appearance of the epidemic in certain places, several have been simultaneouly attacked; at Earsden Colliery, for example, thirty-two. On its first breaking out here, it manifested itself in three distinct points, between which no communication could be discovered; and the attacks in two of these points were simultaneous. It could not be traced from any source of infection to the individuals first attacked. In many instances likewise, instead of residents in the same house being successively attacked, its invasion of several has been simultaneous.

"There were feelings experienced by various persons, either otherwise in perfect health, or laboring under complaints distinct from the epidemic during the prevalence here, such as spasms, thrilling sensations of the extremities, and various affections of the nervous system, which appeared to betoken the influence of some cause more generally diffused than contagion; since many persons thus affected had not been exposed to any source of infection."

An instance quoted in the British and Foreign Medico-Chirurgical Review, as peculiarly strong against the contagion of cholera, was the following:—"In 1842, a British regiment, which had just arrived in India in rugged health, proceeded up the Ganges in two divisions. The voyage of the first division commenced on the 22d of September—on the 25th of October, the cholera, of a most malignant kind, broke out among them, and reached its height in four days; it was at the same time frightfully prevalent in the villages on the banks of the Ganges, so that in one town they found bazars deserted or depopulated by the disease, which had then raged some months. Every effort was made to pass rapidly up the river and to effect the speediest transit through the infected district; and in twelve days the disease began to decline. This change was coincident with their arrival in a country not suffering in so great a degree; and after emerging altogether from the infected district, the cholera completely left them. The important point was

that a whole month afterwards, the other division left Calcutta, and proceeded in the same way up the Ganges, and the voyage of the latter was a complete counterpart of that of the one which preceded it; this division was attacked at the same point, pushed rapidly on and lost the pestilence where the first division lost it. The mortality of the disease was precisely the same, and the disease continued to prevail on the banks."—In the April number of the same periodical is the following instance taken from the Bengal Report. "Sundeep, an island in the Sunderbunds remained in 1818 and 1819, perfectly free from cholera, although the islands all round it, similar in position, cultivation and geographical features, suffered frightfully, and for long periods from the disease. This singular and unexplained exemption would doubtless have been attributed to quarantine, if this had been practised, but free and uninterrupted intercourse was carried on the whole time between Sundeep and the adjoining islands."

A parallel instance, of total exemption, was exhibited by the island of Kristofsky, which communicates by bridges with St. Petersburg, by which free and constant intercourse was maintained during the prevalence of cholera in that capital.

The Faubourg Leopoldstadt at Vienna afforded another example of a like kind. Instances of this kind are sufficiently frequent, but examples enough have been cited to illustrate this epidemic in the most important and diversified points of its history.

The British reviewer, in the July number of the journal last referred to, on the subject of contagion, espouses the negative side. He affirms, that the contagiousness of cholera "is an undecided point on which no man is warranted at present in giving a positive opinion, and he comes to the conclusion, that it is a point of little practical value whether the reproduction of the poison might occasionally occur in this way;"—"that it is a scientific curiosity; not a thing for statesmen and legislators."

He reluctantly confesses nevertheless, that the weight of the argument is on the affirmative side—that there is some real evidence to prove that it sometimes *is contagious*, and might in a very small minority of cases be reproduced by the human system"—that moreover, "it has in some cases been transported by a body of men and thus become *portable*."

Byrne complains that the non-contagionist has no theory of his own, and that his whole occupation consists in endeavoring to subvert that of the contagionist; and that had he succeeded in all his aims, he would after all have only proved to us that contagion is only one way by which cholera *does not* advance—and thus after fifteen years would but have convinced us of our ignorance, without having made one step towards enlightening it. And Kennedy observes, "that when men of talent, who have studied the subject, doubt the existence of contagion, their doubts are to be understood simply as an acknowledgment that they are unable to account for the disease on the theory of contagion, or on any other theory reconcilable to the admitted facts of its history." "And that one of two alternatives remains for our adoption, either to furnish proof that cholera is propagated through contagion, or to acknowledge that we are totally ignorant of the cause."

Can the epidemic cholera, originating in one community, under *certain circumstances*, be propagated to people in another community, by the

transportation thither, of persons infected with it, or of fomites? This is a mere question of fact, to be determined on evidence alone, and when disposed of, it narrows the ground of controversy very much. My apology for having entered so much into the details I have given, has been the wish to bring in fair connexion such facts as are generally disjointed in order to sustain unfair and partial opinions. Viewing facts as they have been presented to us, I think we are bound to admit, that local circumstances may exist in many places, which though incapable of originating the epidemic cholera, may if that disease be transported into such localities, tend to propagate and to spread it, whilst we must equally believe that there may exist circumstances, under which, the disease when thus transported, is incapable of being propagated. This has been the conclusion arrived at by many able investigators.

Sydenham in the analogous progress of the Egyptian plague (in 1665,) thought that the coöperation of a peculiar atmospheric disposition, or constitution, was essential to the diffusion of that pestilence; but he thought this condition of the atmosphere inadequate to the production of that pestilence in England, without the importation by fomites, or the arrival of an infected person from an infected district." (Sect. ii., chap. ii.)*

Dr. Copland, in viewing the spreading of Asiatic cholera, goes much further;—he says, that "predisposing causes in the atmosphere may reinforce the infecting agent and assist its action;" but "although the author admits, that the pestilence is greatly aggravated by certain states of air to which the term epidemic is strictly applicable, notwithstanding our ignorance of the precise nature of these states, yet there seems no doubt that it is propagated, and prevails to a certain extent, *independently* of an epidemic concurrent influence." Kennedy does not go quite this length, as will be seen hereafter.

The question which next arises is this!—are those predisposing, or non-disposing circumstances known, which favor the epidemic propagation of this disease at one time and which prevent its propagation at another?—is the knowledge, in what these conditions most essentially consist, ascertained? This question has been generally answered in the affirmative and a variety of different agencies enumerated by different writers; yet by others again, and these persons who have given the subject much attention, it has been decided in the negative. Another question, finally, may be alluded to! does the specific virus, or cause superadded to those which are predisposing, derive its first origin from the living body only, or is it derived from sources external and foreign to the human system?† Dr. Copland considers that the virus of cholera is a purely animal miasm and that it can derive its existence from the living body only. This view appears the most at variance with the epidemic character generally assigned to it.

---

* "The contagion accompanying the disease, and the disposition of the air to promote that contagion, ought equally to be considered; both being necessary to give the distemper full force."—(*Mead on Plague*, chap. ii, p. 184.)

† As an evidence of both the importance and difficulty of this subject, Sydenham believed that epidemic diseases arose from mineral vapors, derived from the inmost bowels of the earth.

If we agree with those, who deny to the cholera any epidemic character, and who explain its propagation upon the doctrine of contagion in its most limited sense; such facts as those noticed with respect to the island of Sundeep, Kristofsky, and the other instances last adduced, could hardly be accounted for, short of considering the inhabitants in an exempt community, which immediately adjoins and allows communication with an infected one, to be composed of those more rarely constituted individuals who are from inherent causes, not susceptible to contagion. Persons who constitute isolated and exceptional examples in one community, are, by some accidental event, assembled in numbers to form the entire population of an adjoining community. If it were possible to believe so singular an incident to be the case, we must shut our eyes to the fact, that so soon as these unsusceptible individuals from the exempt district, step within the precincts of the adjoining one, the disease attacks them as indiscriminately, if not more so, than it does the proper residents.

On the other hand, if we agree with those who advocate the belief that the disease never is contagious, we can only annul the facts first adduced, by supposing that wherever a certain number of indivdiuals in a healthy community, who have intercourse with an infected person coming from an infected district, are attacked with the disease, and none others, that this is a mere coincidence.

Again, those numerous examples where the disease has made its appearance in places so soon as it has been imported, and not before, we are obliged to consider as coincidences. But, furthermore, the remarkable fact that the disease should have appeared in one place, and extended to remote places progressively, and in no instance simultaneously, must be left unaccounted for at all.

To those who deny contagion, and attribute the propagation of the epidemic to poisonous miasma wafted on the winds, the contagionists object, that in "such case the disease could not make any sensible progress directly against the continued and violent monsoon winds, nor could villages nor tracts of land escape the disease, when all around them were suffering from it."—(*Madras Reports.*)

"The wide and uniform diffusion of cholera which we have witnessed, has taken place over countries bearing little or no resemblance to that where it originated: and their climate and seasons, especially, have been altogether dissimilar."—(*Ibid.*)

To those who *deny its contagion*, and attempt to account for its propagation by supposing it solely to attend the development in the atmosphere, of a specific poison, which has an immediate telluric origin, the contagionists object that the cholera "continued to spread among the crews of ships after they had left the ports of India." "If," say they, "the cause of the disease be connected with the soil, how does it produce its assumed effect on the waters of the ocean? Moreover, these specific telluric emanations don't take place simultaneously at different points, but are evolved coincidental with the importation of the disease."

To those who refer it to electro-aërial influence, the last objection would be equally valid.

Finally, to those who attribute the spreading of epidemic cholera to the incidental combination of the several causes usually assigned for the

production of pestilence, and restrict the appearance of contagion solely to neglect of cleanliness, crowding together of the sick, and imperfect ventilation, it is only necessary to say, that the combination of so many causes coincidental with the progressive eruption of the disease, has seldom or ever attended its course; and that numerous instances of its contagiousness have been exhibited in open, airy, and thinly-inhabited situations, and during opposite states of the atmosphere, as respects both humidity and temperature."

The circumstance either of contagion or of non-contagion, is not *commonly* regarded as essential to what is termed an epidemic disease. Smallpox, which is a disease acknowledged by all to be contagious, is only capable at disconnected periods of spreading epidemically. Yet, in proportion as the epidemic form prevails or declines, will the contagious type of the disease increase or diminish. Cholera was a disease long known in India, and is said to have prevailed epidemically at different periods, both in India and Europe, previous to its epidemic outbreak in 1817.* When the disease was not prevailing epidemically in India, it was not considered contagious—thus we are assured by Kennedy—though Copland, and some others, think the epidemic cholera to be a distinct and different disease. The Egyptian plague, however, in its sporadic form, and as it is observed each year in Egypt, is regarded, like cholera sporadica, as non-contagious. The same characteristic has been observed in dysentery.

From the different facts observed in its history, it appears that the localization of an epidemic cholera must have some intimate connexion with the hygienic condition of the place in which it can exist. What these conditions are, or from what causes they spring, it is not necessary to my purpose to hazard an opinion.

Assuming what is universally conceded, that the epidemic disease pervades the atmosphere wherever it prevails, I deduce the following conclusions, which, I think, afford an explanation of the mode of development and mode of progress of the epidemic cholera, which is reconcilable with all the facts observed in its history.

1st. In localities where epidemic cholera originates, it is produced by the combination of certain elements already existing in the atmosphere, which in their course of combination, or when combined, produce a poison, the effect of which is the cholera.

2d. These elements do exist in all other localities in the world where cholera is capable of becoming *epidemic*.

3d. Previous to the existence of epidemic cholera in all such localities, the elements necessary to form the poison, have not yet entered into the requisite combination; but these elements may be made to enter into this combination, by the introduction among them of the same elements which have undergone or are in the process of undergoing that combination; and the atmospheres of such localities become cholera atmospheres.

The change thus wrought is similar in its character to that illustrated in the phenomenon of fermentation, wherein we see the properties of

---

* Sir John Pringle, on Diseases of the Army in the Netherlands, London, 1752, observes: "The *cholera* and dysentery, though seldom *epidemic*, yet are the frequent diseases of the moister countries."—Part I., Chap. I., p. 7.

large masses of matter changed, by the addition of another small portion of the same material undergoing that change. Therefore it may be said in general terms, that the existence of an epidemic cholera, is due in each case to a peculiar change imparted to the atmosphere of the locality where the epidemic prevails.

In the spreading of an epidemic from one locality to another, this change peculiar to the atmosphere of the first place, is reproduced in the atmosphere of the new locality, not by the mere admixture or diffusion in it of the specific poison which invades it, but by the invading poison, starting in it a peculiar and kindred change, such as is illustrated by the phenomenon witnessed in the ordinary process of fermentation already alluded to. The effect of a particle of leaven introduced into a mass of dough in leavening the whole mass; or that produced upon a quantity of wort or grape-juice by the smallest addition of the same fluids in a state of fermentation, serves for exemplification.

For the development in any given place of the phenomenon designated epidemic cholera, two principle conditions are consequently necessary; one of these is a previous abnormal state of the atmosphere of such locality, which may be called a state of adaptation or susceptibility; the other one is the addition thereto of a morbific agent which is capable of setting up in it the requisite change. One of these conditions existing without the other; no epidemic cholera can prevail, and consequently out of the prescribed limits, we have seen that the disease actually may and does lose its epidemic character.

That the epidemic does not spread by the mere diffusion of the poisonous atmosphere, which must become less and less concentrated as it is extended, is shown by the numerous facts of localities in immediate proximity to the epidemic not being disturbed, whilst other places more remote are often selected for its ravages; also by its devious route, and its frequent advance in opposition to currents of wind. The fact that when transported by persons afflicted with the disease, as observed in the movement of troops, by sea or land, the cholera is incapable of setting up a change in the atmosphere of one locality so as to engender an epidemic, whilst it readily engenders that phenomenon in another place, goes to show that the previous atmospheric conditions of the two places were different.

The doctrines I have here advanced on the mode of propagation of epidemic cholera easily reconciles itself to all the diverse phenomena which has attended its progress, and can conflict with none of the facts which have been brought against other theories. In order to comprehend its erratic wanderings and its skips and strides, we must first recognise the simple fact, for which I have offered a solution, that in some conditions of the atmosphere of any place, the cholera virus, whether it emanate from a human body infected with the disease, whether it be brought in a trunk or ship containing cholera atmosphere, or comes in any other way, is capable of reproducing in the atmosphere of the place a poisonous change; whilst in another condition of the atmosphere of either the same or of a different locality, the introduction of cholera virus is quite incapable of reproducing in it such a change.

The following characteristic of an epidemic disease finds such a strict analogy in the fermentative process above contended for, that I cannot

refrain from here drawing attention to it. It appears to have been generally noticed as a singular matter of fact, by persons holding different views and consequently irrespective often of any particular theories. "A great peculiarity about the choleraic virus, is, its gradual development and exhaustion. Thus it enters a place and, something in the manner of plague, attacks a few of the most predisposed individuals; then increasing, it rapidly reaches its acme, and then declines. Mr. Kennedy attributed to it a kind of monthly course; and Mr. Orton and others have fancied the varieties were dependant on lunar changes." "Dr. Lorimer adds another example to this curious peculiarity: The average duration of a severe epidemic outbreak of cholera is under four weeks, and the period of its greatest virulence is limited to about one third part of the whole time of its continuance, or about nine days, during which time nearly one half of the attacks are fatal, while during the whole period of the epidemic the deaths amount to one-third of the seizures.....The virulence of the epidemic is confined between the fourth or fifth and fifteenth day of the epidemic." (Lorimer, p. 10.) (This extract is quoted from the British and Foreign Medical Review for April.) The reviewer here remarks, "in this development and decline, cholera seems to have some singular analogies to plague and epidemic smallpox. It is this fact also which has given some countenance to the opinion before referred to, that the development of animal life comes nearest to the spread of the choleraic agent."

Dr. Handcock (Art. Epidemic, Cyclop. Prac. Med.) remarks, "we are informed by Dr. Russell, that at the beginning of an epidemic plague, the contagion is feeble," and that the contagion is nearly if not quite extinguished at the decline, both in persons and clothes, must be obvious to every unbiassed observer who considers the facts; for the disease has never ceased in any place for want of subjects to act upon.* "Dr. Russell, sums up the matter in these words, after stating that the constitution of the air is the cause which heightens or lessens the susceptibility of the contagion."—"1st. In the beginning of a pestilence the disease though less contagious, appears in its most fatal form. 2d. On its increase and height, though manifestly more infectious, the malignity of the effluvia does not seem to be exacerbated, because milder forms of the disease are then more common." Dr. Handcock, in commenting upon the observations of Dr. Russell, says,—"In considering the progress of an epidemic pestilence from one country to another, it must be viewed as a remarkable fact, that a disease which has become so mild as to lose the power of doing mischief in one place, when transferred to another should begin in the same insidious and destructive manner, and continue to rage with the same violence, and at last moderate its fury in the same way as it was observed to do in the former."

A report on plague and quarantine to the Royal Academy of Medicine, Paris, 1846, makes this phenomenon one of the first characteristics

---

* Though in the month of September (says Maitland,) death rode triumphant, and part of October proved equally fatal: yet during the two succeeding months, the town was repeopled with as much rapidity as it had been deserted.—(*Plague of London*, 1665.—*Adams on Epidemic*, p. 5.)

of an epidemic disease. "Epidemic diseases present characters which distinguish them from diseases non-epidemic.—1st. They have in their progress a special course. They have generally three periods: period of commencement, persistence, and decline or termination."

When we compare this course of an epidemic with the fermenting process, through like periods of increase, maturation, and decline, we see how aptly the one illustrates the other. The fatality which attends the sickness of those few who are seized at its commencement, would be expected where the atmospheric cause is on the increase, and the diminishing severity of the type as the maximum point is past, would harmonize with its returning salubrity.

What this condition or these conditions of the atmosphere may be, which renders it capable of taking on the epidemic change may be partially determined by contrasting the condition of such places as the epidemic selects for its ravages, with the relative severity or mildness of type the disease therein assumes, the duration of its period of incubation in such place from the time the pestilence may have been first introduced until it has attained its height, and the duration of its visit. The more closely the geographical and meteorological conditions of any region approximates to those of the country where the epidemic originated, the more readily we may suppose the propagation of the pestilence will be effected therein.

Kennedy says that Jessore, where it commenced its ravages in 1817, and prevailed with intense malignancy, is "a crowded, dirty, ill-ventilated place, surrounded by a thick jungle and exposed during the rains to the effluvia of an immense quantity of stagnant water. The district of which it is the capital, in its southern quarter is composed of the 'Sunderbunds,' a name given to numerous low, marshy islands contained in the delta of the Ganges." The same author observes, that "in a village supplied with running water, and surrounded by grounds which are open and favorable to free ventilation, the type will be less dangerous than in a town crowded with inhabitants, hemmed in by jungle and exposed to the exhalations of stagnant water. The type prevalent in the village, indeed may be decidedly non-contagious, while that in the town—the disease being the same in kind, but different in degree—may assume the most virulent and contagious form."

The report of the Sanitary Commissioners in England states, "that the mode of its epidemic invasion in the various cities of Europe has been every where strikingly uniform. It has always made its first outbreak in the lowest and dampest portions of the city attacked. They remark that it is the combination of humidity with impurity of the atmosphere, which so powerfully predisposes to cholera;"—that "cleanliness however seems to be capable of controlling the effect of mere humidity, as was exemplified in Holland, where they were comparatively exempt from the disease."

In the valley of the Mississippi the epidemic spread with great readiness and severity, whilst in New-England it made but little or no progress. "From Jessore it is said to have extended to the adjacent villages and to the whole province of Bengal in a progressive manner;" while "in the upper provinces of Hindostan, its visitations were more irregular, and it often happened that a village situated on the line of route apparently

taken by the malady, would remain untouched." This exemption often proved, however, of very uncertain duration the epidemic ultimately prevailing. The degree of time the propagation of the pestilence is resisted in different districts traversed by it, is often very variable. For example, "when the cholera raged near the city of Hyderbad, many days elapsed before it reached the cantonment—a distance of only five miles. When it has broken out in a place, as in all other epidemics, individuals equally exposed to it resist its influence for different lengths of time. When the pestilence broke out in Calcutta, "it committed great havoc among the natives during the first days of September, but the Europeans where not attacked until the fifth of the month." Kennedy, in alluding to this circumstance, observes; "why the disease should reach the Europeans then and not before cannot be explained on any meteorological observation made at the time. The fluctuations of the barometer and thermometer were exceedingly small, and the other atmospheric phenomena were regular."

To originate the epidemic it appears necessary that a number of causes should conspire, which after it is fairly started are not all necessary for its further propagation, (as obtains in fermentation)—thus other predisposing causes being equal, a difference in the bodily condition of the inhabitants of one district may turn the scale against it, and vice versa. We might otherwise ask, why the pestilence should have originated and still maintain itself in the Delta of the Ganges and not in that of the Mississippi, where the ordinary meteorological influences are often so similar: but mark the difference in the bodily condition of their respective inhabitants. Kennedy, in speaking of Calcutta, where the condition of the people and atmosphere was very much the same as at Jessore, says,—"to convey an idea of the complicated wretchedness of the lower classes of Hindoos and Musselmans of this period, it will be necessary to speak of their habits and places of abode." "The native town of Calcutta is chiefly composed of miserable lanes, narrow, dirty, and unpaved; and the majority of the dwellings are low huts, with side walls built of mud, mats, and bamboos, and covered with small tiles. Amongst the swarming population of these filthy receptacles, in which all descriptions of disgusting animal and vegetable odors abound, the distemper ran a long and wide career of destruction. Barely existing on a meagre diet of bad rice, the poor workmen, who had been abroad all day pursuing their laborious avocations in the sun, returned to their hovels in the most fitting state of body to contract the disease." The condition of the inhabitants, he says, in some of the adjacent towns, was indeed hardly to be imagined. "These villages are made up of mud or straw huts, which are individually from six to twelve feet square, and so huddled together that there is scarcely room to pass between. In each of these habitations a whole family resides, and, not unfrequently cows and other domestic animals are added to the proper inmates. These dependencies are, moreover, intersected by pools, broad ditches, and channels, which in the rainy season become the reservoirs of foul water and corrupt weeds."

Mere bodily condition, however potently it may assist, is not a sufficient cause of itself to originate the epidemic, since we have the almost parallel condition in this respect of the people of Ireland, where the epidemic has appeared only in the regular course of its progress.

In order to decide upon the contagion or the non-contagion of a disease, the exact application of the term contagion should be defined; if it be applied only to the mere contact of a living animal, laboring under a certain train of symptoms, with one unaffected therewith, it is vague, inaccurate, and consequently unsatisfactory. For the mere shaking hands with a syphilitic or a smallpox patient, other modes of contamination being prevented, would probably equally fail to propagate the disease.

We must suppose the *virus* which causes the peculiar train of phenomena in the system of the sick person to be brought into contact with a portion of the system of the other person, which portion is in a condition to become infected. For this purpose, taking smallpox as an example, it is known to be quite unnecessary that the virus should be brought in contact only through the intervention of the living animal tissue. It is equally well known that animal heat, though possibly it may be constantly necessary for maintaining the integrity or activity of some poisons, is not so for the virus of smallpox, and any other diseases which may exist under great variations of temperature.

Any specified disease, therefore, which may be propagated to the human system through the contact of a morbific agent, be the same existing in the living animal tissue, in clothing, or in the atmosphere, must equally imply contagion. This leads to the consideration, as a next step, of the nature of the phenomenon to which the terms contagion and infection have been applied; and, finally, to the conditions which characterize the strictly endemic from the epidemic form in which many of these diseases are known to prevail.

Under the same circumstances, when too old, contagious materials, like leaven or yeast, appear to lose their power of exciting action.

In the application of the virus of smallpox to the human body, we witness the phenomenon of a minute quantity of material possessing the peculiar property of setting up in that body an action which results in the reproduction, in large quantities, of new material, endowed with precisely the same properties as the original matter. The original mite of material may be dissipated, and now no longer have existence, but its property has been communicated; the matter which we now have is not this original mite diffused through the system, but it is a fresh additional supply, in a similar train of action, and endowed with similar properties. That it exists in almost unlimited quantities, has been manufactured from elements already existing in our system, and consequently that materials existed in the human system capable of being so related as to produce smallpox virus in large quantities, we have here the direct evidence of our senses.*

---

* Rhazes, on the causes of smallpox, observes: "Now, the smallpox arises when the blood putrefies and ferments, and the fermenting particles are thrown out of it; the blood of children, like to new wine, being changed to that of young men, which is as wine perfectly ripened. And this fermentation and ebullition is the disease."—*Mead's Translation*, Chap. II.

Cullen and Walker compare the action of the smallpox virus, when introduced into the blood, in a very clear and explicit manner, to that of a ferment; which produces (in the language of the latter) an "assimilating fermentation."—Vide *First Lines, Treatise on Smallpox.*

Mr. Cruikshank, in a more general reference to the same idea, says: "Fermenta-

We have here, then, the metamorphosis of a material produced by the transposition of its elements through the agency of an external disturbing force. The analogy between this and the effect of a particle of leaven upon a piece of dough is sufficiently apparent.*

Owing to the various processes of decomposition and recomposition, constantly going on upon the surface of the earth, due to the action of chemical laws, the atmospheric fluid in which we are immersed, independent of its own proper constituents, becomes, near the earth, more or less charged with elements in a transitory state of combination, and forming materials, the properties of which are modified according to local circumstances. The virus of smallpox often finds in the atmosphere the same constituent elements of which it itself is composed, and only differing in property in the fact of being differently related or combined. The affinities controlling these relations may be comparatively so weak as to be easily disturbed by its presence, and these constituents are then made to assume new relations, identical with those of the disturbing agent—*i. e., smallpox.* Reproduction consequently ensues just as it did under like circumstances in the human system; and any human being within the sphere of such metamorphosis in the atmosphere, be its limits extended or contracted, is liable, through this general mode of contact, to have communicated to his system the same process as would be engendered by any other mode of contact—the requisite conditions of the body must exist, of course, equally in both cases. Other conditions, it may here be observed, may exist in the human system which seldom or never exist in the atmosphere; and thus the former may be subject to a train of distinct phenomena, capable of being communicated only by individual contact: such as the diseases called syphilis, gonorrhœa, porrigo, etc., etc. Epidemic agents differ here simply in not being restricted in their field of operation to the human system alone, but in finding their elements of increase and reproduction in the atmosphere as well.

In smallpox, wherever the pestilential condition of the atmosphere is restricted to a very limited space, it is usually termed endemic: within the precincts of a single room it might be so called, although, substantially, the same causes may be in operation as when the disease is extended in its area over a region of country. Yet, supposing the atmosphere of that room to have been very pure, and that a case of smallpox is introduced into it—without considering the partial decomposition of that atmosphere in the process of respiration, and its consequent change—it may, through the mere recurring emanations from the body of the patient, become so charged with the virus, as to propagate the disease to the system of a new individual immersed in it. Here the relation of the

---

tion has been chiefly observed in dead matter, and is commonly accompanied with ebullition and extrication of air; but fermentation may also take place, and I believe certainly does take place in *living matter.* Ebullition, or any evident motion, is not necessary to constitute fermentation; after wine has undergone what is called its open fermentation, it continues, after it is bottled, to go through its secret fermentation, where no motion is evident, and every body knows requires time to ripen."—*Anatomy of Absorbing Vessels,* p. 111, 2d London edition, 1790. See on this point, *Liebig's Animal Chemistry,* Part II., Sec. 13, p. 114.

* See Liebig's Animal Chemistry, Sec. 7, Part II.

virus to the atmosphere would be that of mere mixture, and its production be derived only from the body of the patient. Whether, under such circumstances, such limited relations between the atmosphere and the virus can be maintained or not, one fact is well known, that in the open air, where the latter can find no conditions for its increase, it is speedily dissipated; and this circumstance alone may serve to distinguish the strictly *endemic* from the *epidemic* form of a disease.

Supposing, however, that the air of that space or room, contained already the same elements, but these in such opposite relations as to resist, to a certain degree, any disturbance of their existing affinities, the special chemical change might, under such circumstances, finally be produced, and the disease consequently be propagated in the surrounding atmosphere as a real epidemic; but this disturbance of previous relations would, in an open space, extend just to that range where the equilibrium could be restored by opposing forces, and then cease.

To escape an epidemic, a change of place is often successfully resorted to, and for mere hygienic and curative purposes, a change of air is constantly associated in the mind with change of place; and this, irrespective of any of the ordinary changes in the air induced by the weather.

It may be objected that chemical analysis of the air, in periods of pestilence and periods of health, has failed to determine any departure from its ordinary constitution. Admitting such chemical analysis to have been made as well as the present state of chemistry can allow, yet organic chemistry shows us the frequent phenomenon, termed isomerism, wherein materials, constituted precisely of the same elements in like proportions, exhibit very different properties. Mineral chemistry may be considered likewise to afford a very remarkable instance in the three modifications of phosphoric acid; these with properties entirely dissimilar, only differ in different equivalents of basic water.

Antiseptic agents, which are used to arrest or retard the putrefactive fermentation, disinfecting agents employed to destroy infection in the atmosphere, specific medicines employed to disinfect the human system from disease, (such as mercury in venereal,) whether internally or externally employed, are probably all allied, if not identical, in their mode of operation. I need not dwell, however, upon speculations which open so wide a field: yet it is one which I am satisfied that organic chemistry can alone enable the physician to explore.

Both endemic and epidemic diseases, irrespective of the property of contagion, are referred now as in former ages, to the inhalation of an impure atmosphere, in which some deleterious agent is assumed to exist. "For," (in the words of an old writer,) "to other causes we are not all exposed together, nor do we come in contact with them for the whole day; but the ambient air is diffused around all, and is inhaled by respiration." (*Paulus Ægineta.*)

The question here suggests itself—in what way does the materies morbi, received by inhalation, operate upon the system to produce disease? Agreeably to the idea of its chemical action we would not look to see it exhibiting its effect upon the nervous system before it has established some injurious alteration in the blood. The ground for this old opinion is strengthened when we glance at the conditions which

favor the chemical action of a virus thus encountering us. 1st. We know that the "sum of the superfices of the walls of all the capillaries of the lungs" must establish an immense surface for the contact of the poison; then, according to Menzies, it is estimated that each person averages 28,800 *inspirations* in 24 hours. After a natural *expiration* there still remains in the lungs about 350 cubic inches. The medium quantity of air which enters into the lungs at each *inspiration* is about 300 cubic inches.* Now it must be recollected that the inspired air, by the time it arrives at the pulmonary cells becomes both warm and humid; that the portion of air expired is not identically that which has just been previously inspired, but is principally that vitiated element which the lungs contained before the last inspiration: for the retained air having undergone a sort of pulmonary digestion, by which it is deprived of some constituents and acquires new ones, we may justly conclude that it loses its affinities for the blood, and is expelled more readily than the fresh supply. The materies morbi must, therefore, in the process of respiration, come freely in contact, often for long periods, with this immense surface, during which time the blood of the whole system is subject to its presence. Whether we suppose the poisonous atoms to enter the circulation and be absorbed, or to be otherwise disposed of, they must be here placed in the most favorable position for disturbing the previous affinities of certain elements in our system, and inducing them to assume new chemical relations of a nature incompatible with a state of health.† The symptoms of disease which ensue is merely an evidence that this change of relations which constitutes the actual disease is taking place. If free communication with the sick under these circumstances is productive of no like phenomena in us, the disease is called non-contagious, but if while these new relations are in progress, communication with the sick or materials connected with them can propagate the same phenomena to others, we are forced to recognise the production of a specific ferment.

The idea that putrefaction and fermentation of the fluids in the living body characterized certain fevers, such as typhus and smallpox, is an ancient one, and appears to have been entertained both by the Arabians and Hindoos, but the idea that putrid or contagious particles *floating* in the air, may propagate this phenomenon to the living

---

* Sir Humphrey Davy—see Magendie's Physiology.

† If we introduce into the jugular vein of a dog a few drops of water which has remained a little time in contact with animal substances in a state of putrefaction, in the course of an hour after its introduction the animal will be depressed, and lie down. Soon he will be attacked with an ardent fever; will vomit black and fetid matter; his alvine evacuations will be similar; the blood will have lost its power of coagulation, will be extravasated into the tissues, and death will soon follow.

These phenomena, which are very analogous to certain diseases of the human subject, as the black vomit in yellow fever, etc., appear to originate in an alteration in the composition of the blood. I think even that I have discovered that the dimensions of the globules diminish in proportion as these symptoms become developed. This is in harmony with the passage of the blood through the walls of the small vessels, and the hemorrhages which are its effect." . . . . . "No doubt, then, a certain composition of the blood is one of the conditions important to the exercise of the different functions."—*Magendie.*

animal fluids, by acting as a ferment, I first see suggested by Mead and Sir John Pringle. In Mead's work on Plague, (chap. ii., p. 184.) the following passage occurs: "The pestiferous atoms, impregnating the air, when taken into the body of a sound person, will act like a ferment upon the fluids." And Sir John Pringle, in a letter to Dr. Mead, first published in 1750, says, "the malignant or pestilential fevers are various, according to the virulence of the miasma or putrid *ferment* received into the blood."—*Pringle on Diseases of the Army.**

When we consider that a contagious disease usually requires a period of incubation, after exposure to an exciting cause, and that a reproduction of the specific poison is its most uniform operation, the belief, that the virus acted primarily upon the blood as a ferment and assimilated certain components of that fluid to itself, is more consonant with reason and analogy.

The same idea appears to have been adopted by M. Pariset, and embodied in the report of a committee on Plague, to the Royal Academy of Medicine, Paris, so late as 1846. M. Pariset supposes that the products of putrid decomposition, such as "vapors (not gases) containing organic condensible molecules," while maintaining their peculiar organization, "can serve as a ferment, and act upon living beings to disorganize them." That when the air is in motion the "germs of the plague being dispersed by the winds, are less active," etc.—(*Brit. and For. Med. Rev., July*, 1847.)

The theory carried thus far, however, can only apply, as I have shown, to the phenomena of contagion, when endemic and inseparable from an assumed local source, from whence the materies morbi, suspended in the air, is being supplied. Its relations to the atmosphere would be that of a mere mixture, and it would not diffuse itself in opposition to currents of wind.† The wind indeed would tend to disperse it, or waft it over a contiguous locality, where it might be either too feeble to act, or be destroyed by its constituent elements assuming new relations under the influence of opposing forces. (See page 201.)‡

This explanation, therefore, is yet not sufficiently complete to account for either the spread of an epidemic, or the peculiar course it appears to run in each new locality it visits. The late distinguished Dr. David Hosack of this city, appears to have advocated strongly the theory of

---

* Dr. Mead considered that these pestiferous atoms were received into the body "by the lungs and by the skin, but chiefly by the former:" and Dr. Huxham thought they were received into the stomach by becoming entangled with the saliva and swallowed.

† The diffusion of a poisonous gas, in virtue of the diffusive power investigated by Graham, though it might prevail against winds, does not sufficiently correspond to the spread of an epidemic disease. As the tendency of a gas which is supposed only thus to act, is to diffuse itself equably, its virulence would constantly diminish unless it was capable of promoting, in the nature of a ferment, a reproduction; it would not concentrate upon particular localities and leave an adjoining one untouched; nor be so dependent for its introduction into remote places, upon human intercourse, as cholera and other forms of pestilence have been. A gas escaping from the earth in a particular locality, might act, as a katalytic agent, to effect the primary change upon its atmosphere, which change may afterwards propagate itself in the nature of a ferment.

‡ *Liebig on Chemical Affinity*, part iii., p. 196.

specific ferments, and he is the first and only medical writer, I believe, who advanced this theory in the way necessary to meet these objections. Dr. Hosack most distinctly ascribes the diffusion of an epidemic, to the propagation of a specific virus by an assimilating fermentation, from atom to atom, in the atmosphere itself.*

The two following paragraphs, in the summing up of his remarks, exhibit sufficiently Dr. Hosack's views on this head.

"From these facts I have been led to conclude: 1st. That an impure atmosphere is indispensably necessary to multiply and extend the specific poison constituting plague, dysentery, typhus and yellow fever. . . . . 4th. That the impurities of the atmosphere are fermentable materials, to be called into action by the specific ferment of those diseases, aided by heat, moisture, and a calm state of the atmosphere; and that as far as such atmosphere extends, and the circumstances favorable to such fermentative or assimilating process continue, so far those diseases become epidemic, but no further."

Dr. Hosack here refers to Lucretius as expressing the same idea in his poetical description of the plague recorded by Thucydides. "The same idea of an assimilating process appears to be expressed by Lucretius—when speaking of the contagiousness of the plague, he observes:" Here the original lines are introduced and the following translation by Dr. Good.

> "But when the heaven of poisonous power to us,
> First moves remote, its hostile *affluence* creeps
> Slow, like a mist or vapor; all around
> Transforming as it passes, till at length,
> Reached our own region, it the total scene
> Taints, and *assimilates*, and loads with death."
>
> (*On the Nature of Things.*)

Before concluding this part of my subject I would here suggest an arrangement of diseases with respect to this phenomenon of contagion, under the three following heads;—for which heading, I adopt a nomenclature in accordance with the views I have endeavored to set forth.

Diseases when propagated by the direct contact of one person with another, or by the contact with fomites, may be called (personally, or) *fomitescently* contagious; when they are propagated through the atmosphere, by contact with a virus *mixed* in that atmosphere, but not reproduced in it—in other words, by what is frequently contra-distinguished by the term infection—they may be called *endemically* contagious; and when propagated through the atmosphere, by an actual reproduction in that atmosphere, they may be called *epidemically* contagious. I think that one of the advantages afforded by such a classification would be, that in diseases contracted under any of these circumstances, the actual contact with a *materies morbi* is recognised throughout, in a definite and precise manner, whilst the more immediate source of the poison, or contagion, is designated.

---

* Observations on the laws which govern the communication of contagious diseases;—first communicated in a letter to Dr. Chisholm, July 16th, 1808.—See *Hosack's Medical Essays.*

Again, instead of using the appellations "*immediate contagion,*" and "*mediate contagion,*" or *contactual* contagion and *remote* contagion, as direct contact with a materies morbi must occur in all cases; the definite term contagion, with its simple and precise meaning, is only associated with a term which would designate the precise condition under which we suppose a disease to be contracted.

By this arrangement we avoid any ambiguity, and allow diseases to arrange themselves naturally under one, or more, of the three following heads, each of which will indicate but a phasis of the same phenomenon—thus:

FOMITESCENT CONTAGION.	ENDEMIAL CONTAGION.	EPIDEMIAL CONTAGION.
*Plague.	Plague.	Plague.
*Smallpox.	Smallpox.	Smallpox.
*Chickenpox.	Chickenpox.	Chickenpox.
Measles.	Measles.	Measles.
Scarlet fever.	Scarlet fever.	Scarlet fever.
Yellow fever.	Yellow fever.	Yellow fever.
Typhus fever.	Typhus fever.	Typhus fever.
Cholera, etc.	Cholera, etc.	Cholera, etc.
* * *	* * *	* * *
Elephantiasis Arab.	Elephantiasis Arab.†	———
Sivens.	Sivens.	———
*Yaws.	———	———
*Cowpox.	———	———
*Syphilis, etc.	———	———

I employ the term *fomitescent* contagion in preference to and to the exclusion of the term *personal* contagion inasmuch as the word fomites has a more general application, having been so generally used to designate such matters as goods, clothing, feathers, furniture and the like, which have become impregnated with a poison from the bodies of the sick. Animal bodies, either living or dead, for all practical purposes may therefore be included under the same head with these—with which indeed they are commonly and necessarily associated. There is no reason why the coëxistence of vitality, in the same material, should constitute a serious objection to a term thus employed;—whereas the term personal contagion or communicability could not be so generally applicable and thus only involves a useless multiplication of terms.

The use of the 1st expression, (*Fomitescent contagion*) is made necessary in order to *include* those instances of contagion where a disease can be derived solely by contact with a materies morbi, before the latter is disengaged from some palpable animate or inanimate source. (See page 200.) It includes accordingly both syphilis and smallpox, whereas *endemial* contagion includes only the latter.

2d. *Endemial Contagion* is used to indicate a contagion which is derived from contact with a virus which is diffused or suspended in the

† Aretæus says, that "it is not less dangerous to converse and live with persons affected with this distemper, elephantiasis, than with those infected with the plague; because the contagion is communicated by the inspired air."—(*De Causis ditur. Morb., etc.*, lib. ii., cap. 13.)

atmosphere, as a *mixture*, after its disengagement from some other generating source.

3d. *Epidemial Contagion*, indicates that mode of contagion which is derived from contact with a specific virus, which, no matter whence its origin or source, is capable of reproducing itself in the atmosphere, by affecting a change of relation of certain elements already existing therein. (See pp. 194, 200.)

In this classification, plague, smallpox, and the other diseases marked with a star (*), are all alleged to have been successfully communicated by inoculation on the skin. Plague, which is the first on the list, I have marked thus, because we have it from reliable authorities, that it is a disease transmissible from individual to individual in all the ascertained modes in which syphilis or smallpox are thus communicable, such as by inoculation from the matter of pest buboes, contact with fomites, &c., &c. There is sufficient evidence to believe, that this property is modified in extent by the combined operation of occult causes in the air, and in the system of the individual; to this rule the plague is only subjected in common with smallpox, the cowpox, and I suspect with every other disease, including syphilis itself, which have exhibited the phenomenon of contagion. Taking smallpox, however, as an acknowledged type for all modes of contagion—what are the facts? We find that the virus of smallpox at one time spreads its pernicious influence as an epidemic over regions with such virulence as to depopulate them and to set quarantines at defiance; at another time its influence is restricted to a very narrow space, insomuch that Dr. Haygarth considered that the *infectious distance* in the open air, and in moderate cases of smallpox, could not exceed *half a yard;* and that in the worst cases it would extend but *a few yards.* At another time it comes like syphilis, to be barely and with difficulty inoculable; and at another time it has proved to be wholly inert and capable of exhibiting no contagious properties whatever. These instances are not cited as only applying to mere isolated and individual examples of which many are recorded, (vide *Walker, etc.,*) but as being sometimes exhibited on the largest scale, of which the following example is pretty conclusive.—I quote it from the *Brit. & For. Med. Chir. Rev. for April last.*

"Dr. Norris states, that during the prevalence of the Harmattan on the African coast, smallpox is *not contagious.*" Dr. Dobson, in whose paper Dr. Norris's observations are recorded, remarks, that in the year 1770 there were on board the Unity at Uhydar, more than 300 slaves; the smallpox broke out among them, and it was determined to inoculate. Those who were inoculated before the Harmattan came on, got through very well. About 70 were inoculated a day or two after the Harmattan set in, but not one had either sickness or eruption." The ship, he states, became entirely clear of the disorder; but "after a few weeks the disease began to make its appearance again, and 50 of these 70 were inoculated the second time, the others having caught the disease in the natural way." Dr. Copland notices the same fact in relation to this disease. "It has also been observed that the virus of cowpox loses its activity in particular climates of India. And this is not owing to modifications produced by heat in the dried virus, because it is propagated with difficulty, even when one case has accidentally succeeded; and, in

addition, virus similar to that which proves unsuccessful during one season, will succeed in another." (Vide *Brit. & For. Med. Chir. Rev.*, p. 318.)*

The plague, too, in like manner is, according to Alpinus, checked and wholly extinguished in certain parts of Africa by the Harmattan winds. (See *Cyclop. Pract. Med., Art. Contag., p.* 501.) This Dr. Brown supposes to be owing to the high temperature of such countries; but according to Dr. Norris, "the Harmattan is an exceedingly dry, but not a hot wind; the thermometer during its prevalence seldom averaging more than 80° at mid-day." Dr. Russell, who is quoted as high authority by all modern writers upon the plague, though he maintains it to be actively contagious, and supports his assertions by the most convincing proofs, affirms that experience clearly evinced it to be a fact, that in certain states of the air a communication with the infected was attended with no material consequences.

This author maintained that no combination of indigenous circumstances could give rise to the plague in Syria, that it was of foreign origin, and in all its epidemic invasions the result of importation, yet he tells us that its returns at Aleppo happened at irregular periods, the intervals being of considerable but unequal length, and commerce with Egypt, with Constantinople, and Smyrna remaining the while uninterrupted. Furthermore he states, "that the progress of plague at Aleppo was exceedingly restrained in 1760; it was much more vigorous in 1761; it raged with great fatality in 1762, and in this year was finally extinguished, though there was no appreciable difference in the state of the seasons, in the respective years to explain the varying diffusion of the disease or its ultimate extinction."—*Cyclop. of Pract. Med., Art. Plague and Epidemic.*

It is quite unnecessary for me to cite here any further instances of this kind. All the facts in the history of pestilence which have been brought forward by the varied observation of writers on the subject, however different their theories, appear to substantiate the belief that a specific contagion depends for its development and capacity to be propagated, upon the condition of the atmosphere into which it is introduced. The history of measles, scarlet fever, yellow fever and cholera, in their epidemic progress, present many features analagous to those exhibited in the history of plague and smallpox, of which I think the most skeptical will be satisfied who chooses to investigate carefully this subject. He will find the history of one kind of epidemic pestilence to be, in all important

---

* On the converse, Dr. Adams, in his commentaries on Paulus Ægineta says: "There is a curious passage in the work of the orator Isocrates, which shows that consumption was reckoned contagious in his days."

According to the same authority, Galen says, it is dangerous to associate with persons laboring under consumption, and in a word with all those having a putrid respiration of such a nature as to render the houses in which they lie fetid. (De Diff. Febr. l. 3.)

Rhazes mentions as diseases which are transmitted from one person to another: lepra, itch, *consumption* and pestilential fevers, and sometimes ophthalmia and malignant pustules (smallpox). These diseases, he says, prove infectious, when one is shut up in a narrow house along with those laboring under them or when one sits in the wind blowing from them. Fracastorius, likewise, considers consumption to be contagious.—(*De Morb. Contagiosis*, lib. ii., cap. 9.)

features, that of another, and the mere extension or abridgment of the same phenomena.

NOTE.—The introduction of cholera at quarantine in December last, having brought up and excited much discussion as to its contagious or non-contagious character, I was induced then to write out and communicate the views set forth in the preceding pages. Having expressed these as the result of my own convictions, without allusion to the similar opinions of Dr. Hosack and others, which I have quoted in this article ; I have only to say, that I had not then the good fortune to be acquainted with the fact, that I was advancing doctrines which had been previously advocated. I have, however, endeavored, in referring to these high authorities, to do them justice, by quoting their opinions in their own language. My views have been grounded upon the belief that contagion was dependent upon purely chemical laws, through the operation of which I believe that phenomenon to be engendered, propagated and destroyed. These were submitted, in their present form together with the nomenclature defining the three phases which characterize its exhibition, to a few members of the profession whose more enlightened knowledge of chemistry rendered their criticisms desirable, and I feel it therefore the more necessary to make this explanation for having omitted to notice to them the opinions of predecessors in the same path of investigation.

ART. VII.—*On Inflammation and its Consequences.* By J. B. PIGNÉ, M. D., Late Curator of the Dupuytren Museum. Ex-Vice-President of the Anatomical Society, Professor of Pathological Anatomy, etc. etc. Translated from original manuscript, by L. A. SAYRE, M. D.

IT does not enter into the plan we have prescribed to ourselves, to describe the influence that the inflammation of a part has upon the rest of the economy. A journal is not a book, and should only contain ideas which are little known ; thus before examining the results of inflammation, we shall summarily examine its *mode of development* and its *mode of invasion.*

If we examine facts, we shall certainly find that the transmitted inflammations of an organ, are less severe than the spontaneous inflammations. It is rare that a pneumonia, a pleurisy, a meningitis, or even a peritonitis, resulting from external violence, extends beyond certain limits. It is circumscribed almost always around the lesion, and is generally cured. This is so, undoubtedly, because the transmitted inflammation is altogether local ; whilst that which is spontaneous depends upon a cause which has exercised its influence over the whole economy. This general cause cannot even have the same result upon all individuals placed in the same condition ; for it is incontestable that to contract an inflammation, there must be a certain *power of reception.* Now, this power does not exist, generally, in those persons who accidentally receive wounds, and that is probably the reason why, with them, the inflammation is limited, and is so readily cured. Indeed, we may say, in a general manner, that the power of inflammatory reception is greater in those individuals where the sanguine activity is greater, and weaker in those where the nervous system predominates. Spontaneous inflammation can attack at once the whole extent of an organ, or show itself in a single point ; in this last case, it seems to have points of predilection. It is thus that in meningitis it commences in the part which covers the convex surface of the cerebral hemispheres, and more often in the front

part than the back; pneumonia, generally, shows itself at the centre of the lung in the adult, at the summit in the old; peritonitis in the umbilical region; hepatitis in the right lobe; orchitis in the epididymus; cystitis in the neck of the bladder; nephritis in the tubulous substance; enteritis in the second half of the intestinal tube, (excepting in special inflammations,) etc. Most generally it is limited to the organ which has been its primitive seat; and at other times it extends gradually to the neighboring organs. This propagation of inflammation is controlled by certain laws: thus, in the membranous appendages it is developed by following the surfaces and avoiding the deep parts and neighboring organs; pleurisy does not engender pneumonia, (in peripneumony it is pneumonia which is primitive;) peritonitis never gives place to enteritis; pericarditis is not complicated with carditis; the inflammation of the intestinal mucous membrane does not affect the muscular; in the parenchyma of organs, on the contrary, the extension of the inflammation progresses according to the thickness of the organ. This difference appears to us to depend essentially on the presence of the cellular tissue, which may be considered almost as the only seat of the inflammation, and sometimes as the *conductor* of this affection. Thus, whenever the cellular tissue is fatty, the inflammation increases with rapidity, and extends as far as the fatty tissue; the affection increases with less rapidity when it meets in its passage a cellular tissue loose but not fatty. It also respects, up to a certain point and during a certain time, thick cellular tissue, not fatty, such as we find in the mucous, the serous tissues, etc. We may, then, say with assurance, that inflammation increases in all the organs, whenever it meets in them a cellular tissue which is fatty, and that it changes direction whenever it meets coatings of the cellular tissue which are thick and hard. We shall, at a later occasion, draw practical consequences from this last observation.

Now, we say that all organs are susceptible of inflammation, but there are some that are more susceptible than others; if we would form a scale of the organs according to their power of inflammatory reception, we should class them in the following order:—1st. The cellular tissue. 2d. The serous tissue. 3d. The mucous tissue. 4th. The synovial tissue. 5th. The glandular tissue. 6th. The arterial tissue. 7th. The venous tissue. 8th. The bony tissue. 9th. The muscular tissue of vegetative life. 10th. The muscular tissue of relative life, etc., etc. It must not be forgotten that we speak here only of the *power of inflammatory reception*, for me must, at another time, form a scale for the organs, according to their *destructibility* under the influence of pus.

THE RESULTS OF INFLAMMATION.

We admit but two morbid products as the result of inflammation—which are *pseudo-membranes* and *pus*. Of these two products, one is eminently creative or generative; the other eminently destructive. Wherever one of these two products exists, there has been inflammation, there is even more. We should say that from the moment an inflammation exists, *the elements of these two products* are necessarily deposited in the organ affected. We shall take occasion to explain ourselves upon this proposition; gangrene has been considered as a result of inflammation; this is a very great error; it is the result of the obliteration

or destruction of the nutritive vessels, but not a direct result of inflammation. For there are a number of gangrenes which are all, without exception, the result of a defect of local nutrition, whether there has been inflammation or not. Cancer has also been ranked as amongst the results of inflammation; this is one of the errors which I shall ask permission to combat in a special article, which I shall communicate in a short time.

To return, there are but two direct results of inflammation; that is to say, pseudo-membranes and pus.

As soon as a spontaneous inflammation occurs in an organ, and a solution of continuity takes place, consequently before the development of a transmitted inflammation, an exudation is made in the part. This exudation is of a serous nature, it proceeds from the blood; in the first species of inflammation it appears by exudation from the dilated pores of the arterial capillaries filled with blood; in spontaneous inflammation, it escapes soon after the lesion by the arterial capillaries, and which do not yet contain red blood, but a little later when this inflammation is developed, the capillary vessels are obstructed, and then the serous effusion is made as in spontaneous inflammation, by exudation.

This liquid, which is exuded, contains the materials of the pseudo-membranes and those of pus; following the march which the inflammation takes, these materials give place to pseudo-membranous and purulent products, or are reäbsorbed before acquiring any organization. According to the intensity of the inflammation, the organization will bear but a single product; in pseudo-membranes, in the reunion by the first intention and in the formation of secondary tumors; in the purulent alone, in diffuse phlegmons, in all these cases, that which is not developed is generally reäbsorbed; sometimes, however, it remains, appearing like the other, but never combining with it. In other cases, when the labor bears simultaneously upon the two products, as in cases of circumscribed abscesses, suppurating wounds, etc., the pseudo-membranous product constantly and continually separates the pus from the parts which form it.

In the logical order of ideas, we must first study the pseudo-membranes, for the manner in which we consider this product, will conduct us to the knowledge, or rather to the explanation of several interesting facts, which we shall now mention in the study of

PSEUDO-MEMBRANOUS PRODUCTS.

First Period.—Soft State of the Pseudo-membranes.

As soon as an inflammation affects any organ whatever, there is constantly in the part affected, or at its surface, provided this last participates in the inflammation, a plastic, coagulable exudation, more or less abundant, according to the texture of the organ and the nature of the inflammation.

As soon as a solution of continuity has been made in any tissue, in an individual in good health, the surface of the wound is covered in a few hours, and often in some minutes, with a coating of this plastic matter. In this case, exudation precedes inflammation. If the blood is sufficiently abundant to be carried off, the wound will suppurate; if the blood is not abundant, the wound will heal by the first intention.

This plastic coagulable substance constitutes the first and indispensable elements of the pseudo-membrane.

In the first hours of its deposition, this substance is perfectly transparent; but little by little it becomes cloudy, slightly opaque, and at the end of twenty-four hours it is whitish, and, in the serous membranes, slightly inclined to citron. Nevertheless, with sanguine and plethoric people, when the inflammation of the serous membranes is very intense, this plastic covering presents a slight rose tint. If, with this deposit, a serous effusion exist, we shall see, at the end of a few days, this pseudo-membranous coating assume a slight grayish tint, which is lost insensibly as it approaches the surface in contact with the effused liquid.

The consistence of this substance is very weak; nevertheless, it augments according to the time of its deposition. During the first days, a few drops of water can destroy it, dissolve it, if we may say so, and cause it to disappear completely. It sometimes resembles a piece of soap, which dissolves spontaneously in cold water. A little later, (and this period varies according to the continuance of the inflammation,) it acquires more consistence, and gives to the touch the feeling of a velvety surface.

This product becomes much thicker when the inflammation which caused it has continued a long time.

Its augmentation of thickness is made by two different modes. The inflamed surface continues to secrete the coagulable liquid; this liquid traverses the coating which has been first secreted, and fixes itself to its surface. If this surface is in contact with a liquid containing thick particles, these particles are deposited, they fix themselves, and mingling with the coagulable liquid, augments its thickness. This augmentation is then made by coatings, or layers, placed over each other. Those which have been first secreted, consequently those which are more in contact with the inflamed surface, are those which possess the greatest degree of consistence. This thickness also varies; it is much greater when the deposit has continued for a long time. Sometimes it is hardly a hair's breadth in thickness, at other times (and I have seen it) more than an inch in thickness.

Their adhesion is weak; they are easily taken off, but by little scales, and the surface to which the false membrane adheres, preserves its polish and all its anatomical and physiological properties.

This product is also completely a stranger to the economy. It has no proper existence; it is an amorphous product which has only a great tendency to form an organization.

It does not cause by itself any particular constraint in the functions of the neighboring organs, or at least, the constraint it may possess is confounded with that which is due to the liquid which bathes them.

From the moment the deposit finishes, the inflammation is calmed, so that, if we could determine the moment when the deposit is complete, we might be certain that the inflammatory phenomena had ceased or would cease.

This pseudo-membranous deposit does not hinder in the least the absorbent function which belongs to the organ, it even seems that its pre-

sence seconds it; for from the moment when the deposit is made, the effused liquid is ordinarily reäbsorbed with a certain rapidity.

The exhalent function of the organ retires to its normal limits, and perhaps the presence of the pseudo-membranous deposit is completely foreign to this return towards the natural state of its function.

The Second Period.—The Mucous State of the Pseudo-membranes.

In this period, the pseudo-membranes begin to acquire an isolated existence. Already the vessels are formed and the adhesion established; they then present the following characters.

Their redness is general, darker, uniform, resembling somewhat that of imbibition; no blood-vessel can be observed, their surface is unequal and irregular.

Their consistence is greater, they can be taken off by larger scales; the liquid which the cavity still contains, in which they are formed, preserves its transparence, and still holds particles in suspension; but these particles are larger, thicker and more consistent, and have a membranous and velvety appearance. Their thickness has diminished. It is in inverse proportion to their consistence; they contract according as they become organized, and the blood with which they are penetrated does not furnish the quantity of serosity which they have imbibed, and they disappear rapidly.

Their adhesion becomes closer, not only with the organ upon which they rest, but also with the new surfaces with which they come in contact, in consequence of the disappearance of the effused liquid. We must remark, however, that for these adhesions to be established between two contiguous surfaces, two conditions appear indispensable: the first is that both should be covered with pseudo-membranous deposits, arrived at the same degree of development, and the second, that no liquid or strange body shall interpose between the two surfaces. It is thus in pleurisy with effusion, the adhesions already so frequent would undoubtedly be more numerous and more extensive if the visceral pleura and the costal pleura were simultaneously covered completely with a pseudo-membranous deposit, and if the liquid disappeared rapidly when the deposit is complete.

During this period of the false membranes the inflammation has completely ceased; the effused liquid has almost entirely disappeared; the new product acquires a new power and commences to have a proper independent existence. In the first period it may be reäbsorbed and disappear; but now the absorbent powers of the economy become powerless and it remains.

The resistance of the pseudo-membranes is always too feeble to place an obstacle to the play of the organs; the disappearance of the effused liquid brings a remarkable ease, and the cessation of the inflammation permits the whole force of the economy to concentrate itself upon the organization of an accidental product which from that time progresses rapidly. It is at this time that it manifests a great tendency to take upon itself all the characteristics of the organ in which it is developed; it is thus, that in the serous tissues it has a tendency to assume the physical characteristics of these membranes and begins to acquire all their properties, and thus according to the completion of its organization, it

becomes absorbent or exhalent according to its situation; it is soon covered with a very fine membrane, which resembles perfectly a serous membrane; and it is precisely this circumstance which has often caused the belief that these deposits were subserous.

It is at this period that we must speak of the friction sound which is caused in some cases.

Third Period.—The Cellular and Serous States.

The pseudo-membrane loses that congestive state which existed at the commencement of its organization; it is of a whitish color, of a membranous or cellular appearance, according to the organ in which it is developed. It presents a great degree of resistance and is strongly implanted upon the organs which serve for its base. Its arteries are numerous but very fine; its venous system probably exists,* but I have never perceived it; it has a tendency to contract, and this tendency augments according to the continuance of its organization; it becomes smaller and diminishes in length. Its structure becomes more compressed, and if the organs which it unites remained motionless, as the uterus and the rectum, the omentum and the abdominal walls; or move together as the liver and the diaphragm, etc., the adhesions are close and bind them tightly together. If, on the contrary, the organs move singly or in different proportions, as the lungs and the ribs, the omentum and the intestines, the pseudo-membranes, owing to their elasticity, lengthen in such a manner as to permit the movements of the organs, and cause no interruption to the operation of their functions.

Such are the phenomena common to all pseudo-membranes. We must here notice a circumstance which forms an exception: it sometimes happens that a portion of the effused liquid remains, and no adhesion is formed between the contiguous organs; but the organs, crowded by the liquid and covered by the pseudo-membranous deposit which has been formed, cannot move, owing to the imprisonment in which they are placed, and the pseudo-membrane rapidly acquires a fatty consistence almost cartilaginous, and then constitutes a real malady, the influence of which is felt over the rest of the economy and over the normal form of the cavity in which it was formed.

At the end of this third period, the pseudo-membrane which continues to grow, may take one of these two following directions: either approximate towards the muscular or the bony state.

The Fourth Period.—The Fleshy State.

When it takes a muscular appearance, this period is characterized by the following phenomena: its vascularity is augmented, its color becomes darker, more sanguiue; its tissue is more friable and less areolar; its adhesions become as close as possible; but only with the surfaces which form the elements of their composition. It even appears that this tissue has then a particular tendency to separate from those organs with which it had no connection, save by neighborhood. This separation is

* Mr. Lespinesse has seen, described and drawn these veins, but it has been impossible for me to see them, even with the microscope.

made by means of the cellular tissue, one part of which is abandoned by the pseudo-membrane. This cellular tissue afterwards acquires all the properties which are common to it and is even laden with fat: it is a tissue which isolates the pseudo-membrane from some of its neighboring parts. In the tissue of the new organ, we recognise no fibre, no fibril analogous to those we find in the muscular tissue, but already the asperities and inequalities of its periphery are effaced. Then and for the first time, we may remark the commencement of venous vascularization; it also seems that the nervous system is not altogether wanting, for its sensibility begins to be manifested; at last, the traumatic solutions of continuity easily determine the ecchymosis, and even true hemorrhages.

The Fifth Period.—The Muscular State.

In this fifth period the organization of the pseudo-membrane is finished. We meet it only in the midst of the muscular tissue, which it causes to increase in size, and it also augments its power if it is developed in their centre or at their surface, or when it repairs the solution of continuity, if it is formed owing to a division of these organs. It adheres so intimately to the normal muscular tissue, that it is impossible to see its line of demarcation excepting by its color, which is a little paler; the muscular fibre is shown in its thickness; its consistence is equal to that of the muscle in which it is organized; it is completely isolated from the neighboring organs; its vascularity proceeds from the muscle itself, so that its vitality is subordinate to the last; also, when the physiological action of a muscle has been interrupted or altered, by a partial or total solution of continuity, the pseudo-membrane, having arrived at this fifth period, reëstablishes its anatomical and physiological integrity. For some time it will be paler than the muscle; but in the end it becomes almost as vascular and as dark colored as it; it will never regain its thickness, but it will be as strong and as capable of resistance.

The Fourth Period.—The Fibrous State.

When, instead of taking the muscular direction, the pseudo-membrane has arrived at that cellular state, when it becomes bony, its fourth period, during which it passes into the *fibrous state*, is marked by the following phenomena: its color diminishes, it is of a light pearl tint; its tissue shrinks, becomes thicker, more compact, and loses its elasticity; it has a very marked tendency to diminish in length; its fibres become apparent; its vascularity is only represented by some arteries, which are larger than in the preceding periods, but less ramified, less sub-divided.

The Fifth Period.—The Cartilaginous State.

The vascularity still diminishes, and it even seems as if the arterial trunks, common to the preceding period, diminish in size. In the fibrous tissue, we have just studied, a cartilaginous substance is deposited which spreads over the whole extent of the pseudo-membrane rapidly, and gives it a whitish appearance slightly colored with gray or yellow; according to the organ which supports it. During this period the new tissue is extremely thick, close, not transparent, flexible but not elastic. In its whole extent and thickness it has the same consistence; we can

here trace fibres which are not long, but do not seem to cross each other. In the serous cavities, these cartilages are by one side closely attached to the neighboring tissues, which are torn if we attempt to take them off. Their form is modelled always upon the cavity where they are found. Their loose side is always smooth, uniform without inequalities covered with a very fine and perfectly transparent cuticle, which has the appearance and all the properties of the serous surface. This cuticle joins itself intimately to the normal serous tissue at the spot, where the accidental cartilage ceases, so that it is easy to believe that this has been deposited and is organized in the subserous cellular tissue. In the thickness of the parenchyma of organs, these cartilages are every where adherent to the tissue of the organs; when they are thick, their centre has appeared to have less consistence than their periphery; their surface is not smooth, and has numerous risings and inequalities.

The Sixth Period.—The Bony State.

During this period of the pseudo-membranes, we find at first, here and there, bony granulations more or less numerous, but completely isolated from each other; they are rounded; their surface offers great consistence. Little by little these granulations increase in thickness, but above all in extent, and finish by forming plates of greater or less size. These plates are ordinarily constituted by the juxtaposition of bony needles; they present great resistance in their breadth, but it is easy to break them in their length. The cuticle which covers the cartilage, never participates in the work of ossification, and constantly covers the bony plates. Ossification continuing for a long time, the cartilaginous pseudo-membrane is transformed into a complete bony mass. In the serous tissues, this transformation is only remarked in the pseudo-membranes which cover the parietal serous tissue; I have never seen it in those which are developed upon the visceral serous tissues. Ossification in the cavities constantly progresses from the loose side towards the adherent surface; their loose surface is smooth, presenting no roughness, and has a scaly appearance, whilst their adherent surface is almost always unequal and has a granulous aspect. These newly-made bones have a yellow tint, and whatever may be their resistance, they are almost always porous and thin, at least, I have rarely seen them in a compact, polished state.* In the midst of the organs of the parenchyma, on the contrary, these productions are never presented under a granulous aspect—they are true bones, very hard and of a perfectly white color, having a fibrous texture; they are, from the beginning, compact and eburnaceous, it is not until much later, and even a long time after the cessation of the work of ossification, that their centre becomes alveolar and is filled with a transparent, oily substance, without losing either their whiteness or their resistance.

Such is the anatomo-physiological history of pseudo-membranes; we

* The last case of this kind, I have seen, was presented by me to the Anatomical Society; it was a bony pseudo-membrane, several inches in length, adhering to the falx cerebri; it was completely formed of a compact polished tissue.

perceive that they pass through a series of very distinct transformations in following the subsequent phases or states:

1. Soft.
2. Mucous.
3. { Serous / Cellular } The same period.
4. Fleshy. { 4 Fibrous. / 5 Cartilaginous. / 6 Bony.
5. Muscular.

Whatever may be the state in which we may find the pseudo-membrane at the time we examine it, we may be persuaded that it has passed successively through, and in the order which we have indicated, the different states which, in the scale we have prepared, precede the state which it has arrived at. Thus every muscular state, must have been preceded by the other four states, the soft, the mucous, the serous, and the fleshy. Every bony pseudo-membrane, must necessarily have passed through the soft, the mucous, the serous, the fibrous, and the cartilaginous states.

The rapidity with which this new product passes from one state to another, is governed by certain conditions. In general, a pseudo-membrane which is developed in any organ whatever, arrives rapidly at such a state that it represents upon anatomical examination, the principal characteristics of the organ itself. Thus in the cellular and serous tissues, it rapidly acquires a cellular or serous state; in the fibrous, cartilaginous, and bony tissues, it soon acquires the constitution of these tissues.

Arrived at this point, it represents the organ in which it is developed, the pseudo-membrane possesses the same properties and the same functions as the organ itself; this state constitutes, therefore, the period of complete development, and it is there that it generally stops.

But one of the characteristics of the accidental tissue, is to have a great tendency to extend towards a more advanced state; it is thus that we sometimes see on the pleura the pseudo-membrane which has become muscular advance to the bony state. These are secondary states which we designate under the name of transformations of the pseudo-membrane. Thus, therefore, the transformation commences from the moment the new tissue abandons the structure and the functions of the organ in which it has been developed.

Every transformation follows an infallible, inevitable course. It passes successively through to arrive at a more complex state, the different states, which separate its complete state from that which it next takes, as we have already indicated.

The pseudo-membranes, whatever may be their complete state, arrive rapidly at it in traversing the different intermediate states; but as soon as they have arrived at it, their transformation is always slow.

Thus a pseudo-membrane of the pleura soon arrives at its complete state, that is to say, the serous state; in many cases a few days suffice; but this same membrane takes several years to assume the bony transformation, whilst the pseudo-membrane of the bone arrives in a few days at its bony period, passing through, nevertheless, all the intermediate states.

Making a direct application of the data with which we are furnished

by the history of pseudo-membranes, we do not fear to advance; that all solutions of continuity, all the losses of substance are reëstablished by the aid of the pseudo-membranes, which, whatever may be the organ in which they are developed, have a tendency to take not only the structure of the organ but also its functions; this we have already seen in the serous; and if we pass in review the other tissues we shall find a phenomenon altogether analogous; a tendon is divided, a plastic exudation is made; this exudation passes successively through the mucous state, the cellular state, arrives at the fibrous state, and the solution of continuity is repaired, the tendon recovers its strength and its natural functions. If a bone is fractured, a plastic exudation is made, it passes successively to the mucous, cellular, fibrous, cartilaginous and bony states, and the bone recovers its original solidity.

If a nerve is divided for neuralgia, for example, the pain and the sensibility disappear; a plastic exudation is made which passes rapidly to the mucous, cellular and fibrous states, and a few months are hardly passed when we see the solution of continuity repaired, and the sensibility not only return but the neuralgia.

The cicatrix of the skin follows the same law; a few days often suffice for them to attain a solidity as great as the cuticle itself, and even for it to recover in part, and sometimes integrally, the special sensibility of this tissue.

We will here make a remark of some importance; whenever a solution of continuity suppurates, the pseudo-membrane inevitably arrives at a soft state, then a fleshy state, and at the end of a certain time it passes to the cellular, fibrous states, etc., according to the nature of the organ affected.

As in all the accidental tissues which are formed in the economy, the pseudo-membranes are exposed to certain maladies whose course is different to that which they take in the normal tissues. One of their morbid phenomena and the most characteristic, is to be very easily affected by changes of temperature. Where is the physician who has not often seen persons affected with pain in the callosity of a fracture, in the cicatrix of a stump, in the cicatrix of a burn, of a large wound, etc., whenever the weather changes, and particularly when it is from dry to humid, so shat these tissues seem like hygrometers?

The inflammation which attacks them causes them to disappear with an astonishing rapidity, and this rapidity is great in proportion to the age of the pseudo-membrane.

These products have the property of drawing to them the localization of the diatheses; thus a person who carries in him the germ of cancer will find the localization of this affection made in those organs which contain the pseudo-membranes. It is from want of observation of this fact, that cancer has been thought the result of inflammation, inflammation has formed a pseudo-membrane, and this pseudo-membrane has been the seat of predilection in which the cancerous localization has operated. It is thus with scrofula, which is localized so often in an organ which has received a contusion, or a solution of continuity. Almost every one has seen examples of the localization of tertiary syphilis in accidental wounds; certainly it is not inflammation which has engendered the syphilis nor the scrofula, neither does it engender cancer, only it

determines, by the pseudo-membranes which it furnishes, the place of the localization. Hemorrhages of the pericardium, of the pleura, of the peritonæum, etc., are all preceded by a pseudo-membrane of these organs. I have seen a man who had a double pleurisy with effusion, which was of eight months' standing, and which had resisted all treatment; this sick person fractured his leg, which did not consolidate; Dupuytren thinking that the non-consolidation was owing to a syphilitic affection, submitted the patient to an anti-venereal treatment; the fracture consolidated and the double pleurisy disappeared as by enchantment. Dupuytren had so often cured syphilitic sarcocele, which was reputed cancerous, by anti-venereals, that he often said, "never remove a testicle before submitting the patient to anti-syphilitic treatment."

To return, the pseudo-membranes draw the diatheses to them, and they serve for a field of localization. Pseudo-membranes may disappear spontaneously, without previous inflammation. It is thus that cicatrices often reöpen without any cause; well-consolidated callosities are resolved and disappear. These spontaneous disappearances of the pseudo-membranes, merit our attention for a moment. We must not suppose that these tissues disappear suddenly as a tumor disappears, which is removed. We have already seen that a pseudo-membrane (a callosity for instance,) having arrived at its point of perfection, has passed through a series of transformations; it was at first soft, then mucous, cellular, fibrous, and cartilaginous; now when a callosity disappears, it repasses by the same periods, but in an inverse way; that is to say, that it at first becomes cartilaginous, then fibrous, cellular, mucous, and soft; it is then, but then alone, that it is reäbsorbed. Sometimes it stops in one of these periods, the fibrous period for instance; but in that case it does not disappear. To return, a pseudo-membrane to be reäbsorbed, must always, whatever be its development, to regain its soft state, descend the scale by which it has risen to its development.

Reflections. Having considered the pseudo-membranes in this manner, we may perhaps change this word for another more suitable, and which will explain our idea in a clearer manner; this word is "*Neo-organes;*" for all these inflammatory productions are the production of tissues analogous to some tissue of the economy; in the skin it is a cicatrix analogous to the skin; in the mucous, serous, synovial tissues, they are pseudo-membranes which resemble them; in the nerves, it is a nervous cicatrix; in bones, it is an osseous callosity, and I doubt not, that in the organs of the parenchyma, these "*neo-organes*" assimilate with the organs in which they are developed. Armand Casel, the illustrious editor of the National, had some years before his death, received a sword wound, which passed through the liver; at his autopsy, I found on the surface of the liver cicatrices, which showed the entrance and exit of the sword; there was no trace of fibrous nor cellular tissue, and I am convinced that the pseudo-membrane, which had been formed during the suppuration, had gradually acquired the anatomical and physiological properties of the hepatic tissue. In this manner, we find, that all solutions of continuity of these tissues are made. Nature makes use of the pseudo-membrane, to reproduce all tissues of restoration, as it uses cellular tissue to produce the organs. This last consideration appears to us of the greatest importance; it will serve at a later period to explain the progress and cicatrization of abscesses.

ART. VIII.—*Extracts from the Reports of the Proceedings of the New-York Pathological Society.* (Selected and prepared by Committee of Publication.)

Cases of Chronic Abscess in Cellular Tissue of the Peritoneum.—Remarks.

By LEWIS A. SAYRE, M. D.

Case.—Mrs. Clark, aged thirty-six, of scrofulous habit, had syphilis fifteen years since, contracted from her first husband. Had chancres and buboes, and afterwards ulceration of the throat, of which she recovered: but has been subject to rheumatic affection ever since, upon the slightest exposure.

About eight years since was pregnant, and aborted at the third or fourth month, was confined to her bed for nearly two years, and has never enjoyed good health since. Has been most of the time under the charge of a physician, and treated for a variety of complaints. Some calling it an affection of the uterus, some of the kidneys, liver, lungs and so on; but the diagnosis always being obscure.

I can only get a history of her symptoms for one year back, from her last attending physician, who found her with cough, no expectoration, night sweats, rapid and weak pulse, morbid appetite, frequent stools, sometimes natural, and sometimes dysenteric. Suppressed menstruation, with great pain in the pelvis, hard and tender os uteri. And by speculum examination showing great turgescence of the vessels. The uterus was immoveable, either from having gained adhesions or from the pressure of a tumor—(the latter was supposed to be the case.) The limbs frequently disposed to be flexed, and for the last two months of her life, it was almost impossible to make them assume the straight position. Pain in the lower extremities, and great difficulty in walking.

About four months previous to death she had a copious discharge of pus by the bowels, which continued for some time, varying in quantity from day to day. A few weeks previous to death her bowels became regular, and her appetite morbidly increased. She was under the treatment of a number of the best physicians in the city. But gradually sunk and died with hectic, on the tenth of January, 1845.

Post-mortem, with Drs. Parker and Smith, twenty-four hours after death. Face and upper extremities much emaciated, abdomen and thorax distended from internal effusion—lower extremities œdematous, and strongly flexed, both legs and thighs, requiring great force to straighten them.

The bowels were healthy at the upper extremity; but a number of small round ulcers were found at the lower portion of the small intestine, and near the lower extremity of the ilium was a large ragged ulcer, which communicated with a large and firm sac, occupying all the cavity of the pelvis.

There had been extensive peritoneal inflammation, of long standing, and the intestines were so agglutinated together that it was difficult to distinguish one part from another, and required the cutting edge of the knife to separate them.

A large dark-colored fluctuating tumor occupied the cavity of the pelvis, but did not extend above the linea-ileo-pectinea; it was strongly

adherent to the rectum and colon, and a number of the small intestines. In getting it out, it was accidentally ruptured, and discharged a quantity of purulent offensive matter.

The walls were much thickened and rough internally, and would contain about half a pint.

The lower portion of the ilium, which was attached to the top of the cyst, and had an opening communicating with it, had the same thickened and rough appearance as the walls of the sac.

The uterus was firmly attached to it—was thickened and its cavity much diminished.

The rectum was closely attached to the cyst and much compressed by it, passing over the promontory of the sacrum, and down on the *right* instead of the left side—no ulceration had taken place through it, and its internal structure appeared perfectly healthy.

With the finger passed into the rectum the tumor could be readily felt indistinctly fluctuating and doughy.

Two small tuberculous depositions were found at the inferior portion of the bladder near the urethra—and a tuberculous abscess in the kidney as large as a white walnut and filled with cheesy matter.

The other abdominal viscera presented nothing remarkable.

The lungs had a few tuberculous depositions in various parts, and the left inferior lobe was hepatized, the pleura strongly adherent.

The cavity of the thorax, as well as well as the abdomen were fully distended with turbid serum.

Case 2.—Miss M——, who died on the fourteenth of April, 1844, after an abortion produced the January previous by the notorious *Mad. R——*. I am indebted to Dr. Moses for the notes of this case, which he has taken very fully of all the different organs, but as the abscess and abdomen are the only parts of interest here I shall omit the rest.

Abdomen.—Adhesions, apparently of several months' standing, of liver to peritoneum, of abdominal parietes, and of small intestines to each other, and omentum—small intestines enlarged to size of colon. Coats much thickened, and rough internally by effusion of lymph in large patches.

Colon eight inches and a half across, thickened in all its coats, in a state of chronic inflammation with numerous patches of firm white lymph. *Rectum*, reddened in lower part, upper part pale and smooth, with the exception of a rounded elevated spot like the pointing of an abscess, directly opposite to the fundus uteri, and about an inch lower down, a greenish almost gangrenous spot, the size of a two shilling piece.

The whole mass, rectum, vagina, uterus, and bladder were removed entire, and on making another examination of the specimen with Dr. Gilman, the fluctuation of an abscess was discovered around and about the above mentioned elevated spot in rectum, and laid open by him, and an abscess containing half a pint of light greenish pus was found, situated either between the uterus and rectum, or else in the walls of the latter, presenting the appearance of an old abscess of at least several months' standing, its walls organized and coated with irregular granulations of white, firm lymph.

These two cases are so similar, that one description would almost answer for both, and shows the difficulty of detection except by examination per rectum.

In Dublin Medical Journal, Sept., 1843, p. 1, are 20 cases given of abscess of uterine appendages, by *Fleetwood Churchill.*

It may occur in the ovaries, broad ligament, or cellular tissue; in 23 cases, it occurred 9 times on right side,

" 6 " left "
" 8 " unknown.

23

Pain maintains its seat as a general rule in the tumor, from whence stings of pain radiate in all directions.

When the tumor is high, i. e., above the brim of the pelvis, the pain is more confined to the tumor.

When the tumor is low, i. e., below the brim of the pelvis, pain extends down to the anus, across the pelvis to the back and down the thighs.

In this latter position it is almost impossible to straighten the thighs; the patient is often distressed by tenesmus and a desire to make water.

Fever sometimes precedes or accompanies the first local symptoms; in others, fever only supervenes after the tumor has been detected some time. In a few cases the fever is almost wholly confined to the evening. During the course of suppuration, there are in almost all cases evening exacerbations of fever.

The pulse ranges from 90 to 110, tongue is loaded, skin hot, thirst considerable, urine high colored, appetite always bad.

Terminations in resolution in	6	cases out of 23.	
Opened through abdominal parietes,	2	"	"
" peritoneum,	3	"	" all recovered.
" vagina,	2	"	"
" bladder,	2	"	"
in surrounding cellular tissue burrowing in different directions and down the thigh,	2	"	"
	17		
	6	unknown.	
	23		

This disease has *been mistaken for Sciatica,* for when the tumefaction is mainly confined to the pelvis, and pressure is made on the nerves issuing from that cavity, the pain may be limited to the nerves of the back, so as to deceive any but a careful observer.

It has *been mistaken for gravel,* and patient treated for weeks for frequent desire to make water, with difficulty in passing it, and reddish sediment.

The tumor may be so large as to reach umbilicus, and patient lose for a time the use of the leg on the side affected.

If the *vagina* be harder than natural, and pressure be painful, then the tumor points near vagina.

Same also is the case with the rectum."

Tonelli found 58 cases of ovarian inflammation, and 4 cases of abscess in 19 cases of puerperal fever.

Invasion. In some cases there is mere uneasiness, not amounting to pain, in one or both of the iliac regions, and a tumor may be discovered by placing the hand upon the part.

On or *after a favorable convalescence,* some patients get a slight febrile attack, with some shooting pains in abdomen which may soon subside; *but fever remains without any apparent cause.*

In other cases the nature of the affection is very evident, fixed pain in one or other of the iliac regions, tenderness, and afterwards a tumor.

Again it may assume the character of general *peritonitis,* the pain extending over the whole of the abdomen, generally recurring in paroxysms, with general abdominal tenderness and fever. But *after awhile the extended pain and general tenderness subside, and becomes localized in one iliac region.*

In *one* case there was only severe pain in the course of and limited to the sciatic nerve, and as this was the only complaint, patient was treated for sciatica."

CHOMEL also, in his clinique of 1842–43, gives 34 *cases* of inflammation of uterine appendages, and abscess of pelvic peritoneum, all of which except 6 followed delivery either directly or indirectly.

Symptoms.—Chills, then ill defined pains in hypogastric region, fetid smell of lochia, *more or less fever, and general prostration.*

When these symptoms set in, we must always watch for disease of the uterus or its appendages. When the uterus is sensitive to touch and more voluminous than should be, there is no doubt of metritis.

If the *anus,* the broad ligament, and the surrounding cellular tissue are the seat of the inflammation, then by examination per vagina, rectum, or from abdomen, you will detect a tumor more or less elastic, or fluctuating.

This tumor sometimes terminates in resolution; *but more frequently opens into the rectum, vagina, or bladder.*

Whenever a physician observes these symptoms, just after delivery, with fever, he should immediately turn his attention to these parts, and make frequent examinations, especially of *rectum* and vagina.

The same symptoms are sometimes observed in *men* who are suffering from tumor in rectum; we also find *legs retracted* and sciatic neuralgia.

CHOMEL thinks these abscesses open into the *rectum* more frequent than any other organ; he has detected them by examination per rectum, when they could not be found in any other way, and opened them with a trocar through rectum successfully, and thinks this course of treatment by all means advisable in order to prevent their opening into the peritoneum.—*Feb. 12th,* 1845.

Report on the Pathology and Diagnosis of Chronic Scrofulous Disease of the Testicle.

By T. M. MARKOE, M. D.

From what I can gather from the authors I have had an opportunity of consulting, there appear to be several morbid conditions of the testicle entirely distinct one from another, which are liable to be confounded under the general name of scrofulous disease. Of these we have, 1st, Tubercular disease, properly so called: 2d, Simple Chronic Inflammation, and 3d, Syphilitic Inflammation. True, tuberculization of the testicle is a condition which, though rare, is of sufficiently frequent oc-

currence to have been fully investigated in all its stages. The tubercular deposit in this organ is, in all respects similar to, and in its progress and termination obeys all the laws which regulate and characterize the disease in other parts. A single large crude yellow tubercle may occupy a portion of the substance of the organ, or many smaller ones may be found disseminated through it. Occasionally the whole structure of the organ is absorbed, and crude tubercular matter occupies its place. Numerous small granular tubercles have been seen, but I am not aware that the first stage, or that of the gray semi-transparent miliary tubercle has ever been met with. The epididymus is rather more often the seat of this disease than the body of the testicle. In whatever form, however, they may be deposited, their tendency like all other tubercles is to soften and find an exit from the body by inflammation and ulceration of the tissue surrounding them. Hence abscesses, which on breaking give exit to the softened tubercle mixed with pus, and leave behind them sinuous cavities which it is almost impossible to heal. The substance of the testicle with the exception of its being encroached upon, and in part absorbed by the foreign deposite, generally is found very nearly in a healthy condition, though sometimes, from the irritation of the foreign body inflammatory products are developed round it. Another though a rare termination of the tubercular form of disease is the cretaceous change which it occasionally undergoes, in which it becomes converted into a dry chalky mass, every way similar to the cretaceous bodies sometimes found in the lungs and bronchial glands.

The second variety of disease which is sometimes classed as scrofulous, is simple chronic inflammation, a disease of vastly more frequent occurrence than the one first considered. This affection, as its name imports, is supposed to be simple inflammation of a low grade of intensity and of a prolonged duration, sometimes assuming this chronic character from its commencement, and sometimes falling into it after an acute orchitis. It is distinguished however from most other organic inflammation by the remarkable constancy with which it is attended with a peculiar soft yellow deposit into the inflamed parenchyma. This deposit has very much the color and consistence of custard, and appears to consist of concrete fibrine perhaps mixed with pus. It is in every respect like the soft yellow jelly-like fibrinous deposit which is seen in such abundance in and around joints that have been long inflamed and suppurating. It is sometimes deposited in single masses of considerable size, and sometimes appears disseminated more or less thickly through different parts of the organ. It does not seem to displace and absorb the surrounding tissues precisely as pus or tubercle would do, but to be an infiltration into the meshes of the parenchyma which is more or less altered and destroyed by its presence. It tends to become more and more firm, to pervade more and more of the surrounding tissues, and to become more intimately blended with them. If the disease be unchecked by treatment it continues its encroachments until inflammation and ulceration of the integuments take place, and a fungus-looking growth protrudes which has received the name of hernia testis. In other cases, after reaching a certain point it ceases to increase, and begins as it were, to shrivel and contract, so that after a long period of time the organ which before was

enlarged becomes atrophied to a mere vestige, while the yellow deposit has become a dense fibro-cartilaginous body which may be compared to a cicatrix. Acute inflammation terminating in suppuration, is another mode in which this disease terminates in hernia testis. Sometimes, as in the specimen presented, the parts of the organ not invaded by this yellow matter are perfectly sound; in other cases they are more or less indurated and disorganized. With regard to the seat of the deposit there is nothing satisfactorily ascertained; some considering it as being poured out upon the internal surface of the tubuli, while others, among whom is Cruveilhier, say, that it is effused into the cellular net-work of its parenchyma.

The third variety of disease which I have mentioned is chronic orchitis, arising from a syphilitic taint. But little need be said, however, on this form, for its anatomical peculiarities differ in no respect from ordinary inflammation except that it rarely suppurates or terminates in fungus.

These three morbid states of the testicle then, or rather perhaps I should say, these two, (classing the last two as one,) differ most essentially, as far at least as their pathological anatomy is concerned. In one we have tubercle softening and opening for itself a passage by ulceration and abscess, leaving behind deep incurable fistulæ; in the other we have the yellow substance pushing its way to the surface, ulcerating and finally springing up as a hernia testis. It may be remarked, however, that when inflammation and abscess do occur in this latter, the cavities are about as obstinate in their resistance to remedies as the tubercular cavities.

As the points referred to me by the Society have reference particularly to the pathological anatomy of the disease in question, I have not felt called upon to go into their symptomatology. There are two general features in which the diseases differ that I think too important to be omitted. The tubercular testis is generally a mere accompaniment to some other and more important disease going on in some other organs which are the points of paramount interest to the patient as well as to the practitioner, while in chronic inflammation the testicle is the primary and all important centre of diseased action. This difference, it appears to me, is of great consequence in marking a distinctive character in the two diseases. Finally the tubercular disease admits of no cure except by the destructive processes which nature sets up for its elimination, while both simple and syphilitic orchitis may be considered as very amenable to remedies in all but their latest stages, when they have reached the point of more or less complete disorganization.—*April* 30, 1845.

Case of Solitary Hydatid of the Uterus.—Remarks.

By Wm. H. Macneven, M. D.

Mrs. M——, aged 30, has been married three years. About the ninth week of her first pregnancy she had a miscarriage, she soon became pregnant again, went to the full period, and about fourteen or fifteen months previous to the present confinement was delivered of a large child, which, however, was still born, in consequence of the descent of the cord. She told me that on this occasion a very unusual quantity of water

was discharged. Subsequently to this she suffered two successive abortions at about the eighth or ninth week.

In the last miscarriage, which occurred on the first of January of the present year, she had twins. She became again pregnant before the first of February, and on the fifteenth of last month (October) was taken in labor at the full time. On my arrival about two hours after the commencement of labor, I found the os uteri well dilated, and what appeared to be the distended membrane protruding. I was unable however, either during the continuance of a pain or in the interval of repose, to distinguish any presenting part of the child. The pains were very strong and recurred as often as every two or three minutes. The abdomen of the woman was unusually large and prominent, so much so as to induce her to suppose that she was carrying twins. The os uteri seemed to yield readily to the pains, allowing, as I perceived, the distended membranes to protrude more and more through its orifice. Owing to this circumstance, about twenty minutes after my first examination, on attempting to make a second during the existence of a pain, I found that the membrane protruding through the os uteri had formed a sort of pouch, which so filled up the vagina that I was obliged to desist from introducing my finger until after the cessation of the pain. The result of this examination was not more satisfactory than the first. I concluded however, under the circumstances, to await the rupturing of the membranes without interference in order to allow the process of labor to advance in the mean time as far as it would. Suddenly during a severe pain, attend with an exclamation from the patient, a large smooth mass was expelled through the vulva into the bed, passing over my hand in its course. Raising quickly the bed-clothes I discovered a large smooth membranous cyst of an oval form, and about the size of a sheep's bladder; it was distended with a thin fluid of which it could not have contained less than two pints. Its surface was perfectly smooth except at one place, where was a loose membranous appendage formed by a fragment similar to, and continuous with the external layer of one of the membranes of which the cyst appeared to be composed. This undoubtedly had been the only point of attachment which it could have had when in the cavity of the uterus. No liquor amnii accompanied its expulsion nor did the bulk of the woman's abdomen appear very materially reduced by it; but before I could remove it from the bed, which I immediately made an attempt to do without breaking it, a severe pain seized the woman, caused the bursting of the membranes within the uterus and the sudden discharge of a quantity of liquor amnii sufficient to deluge the bed. Unfortunately, whether owing to the force of the waters or the crowding against it of the woman, the cyst, which I was very anxious to remove from the bed uninjured, broke almost at the same moment and mingled its contents with the liquor amnii, which, I might here observe, the former very much resembled.

The cyst which I presented at the last meeting, the gentlemen of the society have had an opportunity of seeing; it was fortunately not so much injured as to prevent a pretty correct opinion to be formed of its original dimensions. On now making an examination to ascertain the nature of the presentation, I found that the same accident to the child which had attended a previous confinement of the mother, had again very singular-

ly occurred. Several inches of the cord had escaped before the head, and the child, which was a remarkably large one, was in consequence lost before its delivery was effected.

Now a question arises as to the nature of this phenomenon. Was it an enormous hydatid simply connected with the ovum? or was it a distinct blighted ovum, of which the fœtus had at a very early period been absorbed? I have not been able to consult a sufficient number of authorities to know whether a case precisely analogous has been recorded in favor of the latter of these hypotheses.

Churchill, in his work on diseases of females, says, in reference to this subject—"In most of these blighted ova, the fœtus is altogether wanting, having been dissolved in the liquor amnii; we may however generally discern the remains of the umbilical cord attached to some part of the inner surface. In addition the membranes (chorion and amnion) may be traced with the placental development on some portion of the periphery of the ovum." He again observes that the death of the fœtus in these instances may result from "a tumor at the root of the cord, or the cord being inserted where the flocculi of the chorion are deficient, or into a portion where the placenta is not." In the History of the Academy of Sciences for 1714, is the case of a woman who happened to fall in the the third month of pregnancy. The belly, however, increased in size till the fifth, when it began to lessen. In the sixth she was delivered of a bag, as large as the fist, with a placenta and fœtus only the size of a kidney bean. In this case hydatids were not formed.

John Burns observes "hydatids may enlarge the womb, and these frequently are found in consequence of the destruction of the ovum." After describing the usual form in which they appear, he says, "sometimes there is only one large hydatid, or at most a very few in the womb. In the advanced stage, we find the belly swelled as in pregnancy; but the breasts, although sometimes tense, are oftener flaccid, and no child can be discovered in utero, nor does the woman perceive any motion. There may be pain in the abdomen, and obscure fluctuation is discernible externally, whilst per vaginum it is more distinct. The neck of the womb is small and the case much resembles ovarian dropsy, except that tumor occupies the region of the uterus. The duration of this complaint is uncertain; but the water is at last discharged suddenly, and after making some exertion. The bag afterwards comes away, and the process is not attended with much pain. This disease, a solitary hydatid, is oftener combined with pregnancy, or with a mole, than met with alone. The first combination is not uncommon, and I have seen the hydatid expelled some weeks before labor." Hildanus gives an instance of the second, where the ovum was converted into a mole intimately connected to the uterus, and complicated with a collection of fluid to the extent of six pounds. In this case, so much irritation was occasioned as to exhaust the strength and produce local inflammation. Hildanus relates the history of a woman who was supposed to be pregnant, but, dum noctu cum marito rem haberat, a sudden inundation swept away her hopes. The same author relates a case of this kind in his own wife. He also tells of a woman who, in the fifth month, was delivered of a molo aquosa, or vesicle containing ten pounds of water; she did not miscarry, but went to the full time.

Hoffman mentions a woman who had a constant stillicidium, a pint being discharged daily. It at last proved fatal.

Kirkringius, p. 28, considers dropsy of the uterus as impossible, and says, that every case of collection of water depends upon a large hydatid. Dr. Denman seems to be much of the same opinion. A gentleman recently elected a member of this society, Dr. Taylor, mentioned to me two or three days ago, a case of abortion occurring in his own practice, in which he obtained an ovum of six weeks, having a single hydatid attached to it, of a size exceeding that of the ovum itself.

In regard to the specimen forming the subject of this paper, though its large size suggested the possibility of its being a distinct blighted ovum, yet the total absence on any part of it, of all remains of placenta or cord, as alluded to by Churchill, leaves little or no doubt that it has been a large hydatid which has been attached to the chorion in a manner happily illustrated in the specimen obtained by Dr. Taylor.

Poisoning by Opium.—Post-mortem Appearance.

By James R. Wood, M. D.

Mrs. ——, aged 68, died June 15, 1847, fourteen hours after having swallowed an ounce of laudanum, administered by mistake on the part of the apothecary, who sold it for tinct. rhei. The examination was made by request of the coroner, and was held 21 hours after death.

External appearances.—The body was resting upon the back, and there was sugillation of the most depending parts, (as the occiput, neck, posterior part of arms, back, and lower extremities.) Countenance livid. Pupils dilated. Abdomen much distended with gas.

Head.—The vessels of the scalp were engorged. On removing the skull-cap every appearance of congestion was presented. Serous effusion between the arachnoid and pia mater, with great turgescence of the vessels of the latter. These membranes, when examined by transmitted light, presented the appearance of a thin section of recently-coagulated blood. Making a section of the brain, and bringing into view the centrum magnum ovale, bleeding vessels presented themselves at every point, and especially at its periphery. There was considerable effusion in the ventricles. The plexus choroides and velum interpositum were very much congested. Cerebellum congested. In other respects the brain was natural.

Thorax.—The thorax being laid open, old adhesions of the pleura were found, and in each pleural sac a small quantity of serum. The lungs were very much congested, but crepitant. The pericardium was roughened; and on inquiry it was ascertained that she had some years previously suffered from acute rheumatism. It contained no more serum than usual.

The heart was natural in size and structure. Its veins were congested —blood fluid. The ascending and descending venæ cavæ were loaded, and the right heart filled with blood. Calcareous deposit in the arch of the aorta.

Abdomen.—The abdomen contained but a small quantity of serum, not more than an ounce. The liver was of the usual size, but little softened,

and more congested than natural. Gall-bladder large and fully distended. Pancreas and spleen normal. Kidneys much congested—otherwise healthy. Womb and its appendages healthy. Bladder empty and natural. Intestines filled with gas only, and much distended. Stomach of natural size—its veins much engorged. Its contents small in quantity, (perhaps ℥j.,) and apparently consisting of fragments of potato, emitting an acid odor. No odor of laudanum could be recognised. The mucous coat about the cardiac and pyloric orifices presented small patches, which were congested and somewhat softened.

Pathological Anatomy of Yellow Fever.

By Drs. W. C. Anderson, Ashbel Smith, and Prof. Dickson.

Dr. Anderson, of the "Seamen's Retreat," S. I., exhibited the contents of the stomach, taken from two patients with yellow fever, enclosed in sealed phials, one from Staten Island and the other from New-Orleans. The appearance was the same in both—a dark browosity, coffee-looking fluid. Dr. A. stated that about 100 cases had occurred on Staten Island, of whom 12 had died. In the opinion of Dr. A., it is the real imported yellow fever.

Dr. Ashbel Smith, of Texas, said that he had seen, with Prof. S. H. Dickson, cases at Staten Island, and considered the disease to be the same as that which prevails in Southern climates. No symptoms were present which were not in the Southern disease—of this there was not the slightest doubt. The disease was very little, if at all, modified in this (N. Y.) climate. He had seen two post-mortem examinations of cases (on S. I.) with real black vomit. He had frequently elsewhere examined many cases after death, and found the yellowish, fawn-colored liver. In yellow fever, it is generally of a saffron, coffee and milk, or straw-color. Louis says, discoloration was uniformly found in the yellow fever of Spain. The same result is often found elsewhere. Sometimes the claret-colored liver has been found. At New-Orleans and Mobile he had noted the same—sometimes had seen it of an intense mahogany color. Within the last year had seen some of this class. He thought that these dark-colored livers depended upon hemorrhage into the substance of the liver, particularly when accompanied with black vomit. He had never seen hemorrhage into the thoracic cavity, but had seen it in every organ of the abdominal cavity. In examinations after death, hemorrhage is very frequently found, even when not suspected during life. Dr. S. stated that he had frequently seen it take place into the mucous coat of the bladder, and also that of the gall-bladder, into the cellular tissue around the renal capsules, between the peritoneum and the abdominal walls, and under the skin, externally. This last proves fatal. Hemorrhages from the vagina are frequent. So also into the stomach. He had found this in every case where no medication had been employed. Some of the first cases which he saw died without treatment. In these, the mucous membrane for three or four inches around the cardiac orifice of the stomach was found natural in thickness but injected with blood. Beyond this portion it was thicker than natural, softened, and flocculi of black vomit in the orifice of the stomach. Black vomit never adheres to the

natural mucous membrane. Dr. S. believed the black vomit to be formed of blood, or its materials, thrown off from the mucous membrane by loss of its contractility. The first portion invaded is the pyloric orifice. From this point it gradually extends towards the cardiac portion. Sometimes he had seen the stomach inflamed. It is easy to distinguish this from the other state in which black vomit is present. He had seen recoveries even when black vomit was present. General Balis had black vomit, with hiccough. He threw up about a drachm at different times. Sometimes it was in the form of flocculi mixed with fluid—sufficient to make the fluid spotted. This was carefully examined, and there was not the slightest doubt of its character. He had never seen so much as half an ounce thrown up at a time and recovery take place.

Prof. Dickson had seen several cases of recovery from black vomit—at least ten. He believed black vomit to be a hemorrhage—he had pressed it out of the vessels. Black vomit, like many other symptoms of yellow fever—even the yellow liver—was not exclusively peculiar to it. The fawn-colored liver, however, he believed to be so. He had seen black vomit in other diseases—for example, in the vomiting of pregnant women, in some catarrhal fevers, and in hypertrophy of the heart. Was not satisfied upon what it depends. It is a peculiar state of the system. Diseases change accordingly—and it is so with yellow fever. The disease has now more of the congestive form. In 1818–19, saw cases of it die, in which there was no hemorrhage. This state was attributed by some to the use of calomel; but in some cases the expectant plan was tried—there was the same vomit. I believe that death is caused by changes of the blood; it has lost the life-giving power. I have lately seen black vomit thrown up in a case of abdominal tumor. Often there is gastro-enteritis. Black vomit is never found in the gall-bladder, but a glossy fluid is often seen there in yellow fever cases.

Dr. Anderson stated that the practice of Staten Island had been calomel, followed by oil and sulph. quinine in large doses, say 20 grs. It sometimes had the effect of changing black vomit to arterial hemorrhage. ℥ij. of quinine had been given in eight hours. From this he had seen the contracted pupil dilated, and the patient recover. Others had used quinine more moderately. There was great distress at the epigastrium, for the relief of which leeches, blisters, and sinapisms had been used with good effect. The yellowness of the skin occurs more frequently after death, when the face becomes of a mahogany color. In one case, both the face and liver were of this color. In some cases the fawn-colored liver was found. In the present epidemic stimulants do not agree well. Both lemon and beef juice are retained well. Beef-tea is generally thrown off.

Dr. Ashbel Smith stated, that he had seen a negro servant with yellow fever, who had copious uterine hemorrhage. With regard to recoveries from black vomit, some years were better than others. Blood is often pressed out largely from different points of the prima via, from minute orifices. In such cases dark discharges were sometimes followed by light ones.

Prof. Dickson said that he had heard of two cases of black vomit where recovery took place. One, where there was a large quantity

for a number of days (14). Another, a child, who, when convalescent, threw it up freely for two or three days—the convalescence did not appear to be retarded in the least by its occurrence.

Dr. Ashbel Smith said that the practice of the South was rather averse to the use of calomel in this disease. A neighbor of his in Texas, had lost only three out of 100 cases. Another in Mobile, Dr. Wait, only one in 100 cases. With us the patient is put at once under the bedclothes, takes a dose of oil, or a mild dose of senna and aniseseed, *and no other medicine.* The fever subsides of itself. Afterwards, as a tonic, we give London brown stout. Quinine only occasionally. It was given last year in New-Orleans occasionally, but did not answer well. Good nursing is every thing. It is all-important to watch carefully the patient, and not allow him *for a moment even,* to be uncovered. During the first twelve or fourteen hours, ice may be used; afterwards mild tepid drinks. Infusion of orange flowers are much used with us.

In answer to a question proposed by a member, Dr. S. stated that his opinion was unfavorable to the idea of contagion—while occasionally some strange facts have been observed as to this point. He would not pretend to speak decidedly.—*Sept.* 13, 1848.

Art. IX.—*Death from Chloroform.* Reported by Gurdon Buck, Jr., M. D., one of the Surgeons to the New-York Hospital.

John Griffin, seaman, aged thirty-one years, born in Ireland, was admitted, December 4th, 1848, into Ward No. — of the Medical Department, with diarrhœa first contracted in Mexico while attached to the U. S. squadron and which had been releived in the Vera Cruz Hospital. From indulgence in strong drink a relapse had been brought on, for which he now sought relief in the New-York Hospital. On the 19th of December, being cured of his diarrhœa, he was transferred to the second surgical division, on account of hæmorrhoidal ailments and chancres of the prepuce with phymosis.

Patient suffered very severely from the hæmorrhoids, and owing to the excessive irritability of the parts he would scarcely allow the nates to be separated for examination. On or about the 26th of December, with the patient's consent, chloroform was given for the purpose of making an accurate examination of the rectum. No unpleasant consequences followed and the patient appeared as well in every respect after as before the administration.

On the 19th of January, patient appearing perfectly well except his local ailments and having never complained of his head or chest, nor experienced any bad effects from the first administration of chloroform it was administered a second time at half-past one o'clock, P. M., preparatory to the removal of the hæmorrhoids and the operation of circumcision, in the presence of the clinical class. A napkin with chloroform sprinkled upon it was applied over the mouth and nostrils, the patient lying upon his back with his head elevated.

He soon became excited, tossed about his limbs and talked incoherently in a loud stammering voice. The muscles of the limbs and trunk were rigidly contracted, in a few moments, however they relaxed and

patient became more tranquil. He was now turned upon his left side to facilitate the operation on the fundament which was promptly performed and consisted of the excision of two external tumors at the verge of the anus and applying a ligature to one small pedunculated internal tumor. Directions were now given to turn the patient upon his back for the remaining operation on the prepuce.

At this moment my attention was called to the patient by the assistant asking for a cloth wet in cold water. On examination I found his face and lips very livid, the eyes turned up, the whole body relaxed and the pulse imperceptible at the wrist. After two or three gasps at long intervals he ceased to breathe. The napkin had already been removed a moment or two before the wet cloth was called for. The patient's face was turned towards his left shoulder and concealed so as to be out of view of the assistant standing on the patient's right. In turning the face forwards and bringing it into view alarm was excited by the appearances already noticed.

The windows were immediately opened and fresh air admitted. Fumes of ammonia were presented to the nostrils and frictions applied and persevered in for a long time, but without avail. The time that elapsed from the commencement of inhalation to the fatal issue was estimated by some at five minutes and by others at ten, no estimate exceeded or fell short of these limits.

The exciting effects first produced by the chloroform, though considerable were not as great as have often been observed by us in persons of similar temperament, this patient being of a sanguine temperament and of a stout built muscular frame.

Dissection, twenty-four hours after death.—Face less livid than before death. The limbs very rigid.

Head.—The vessels of the dura mater and surface of the brain presented no remarkable degree of congestion. The substance of the brain did not differ in appearance from what is observed in persons dying in full health.

Thorax.—No fluid was found in either pleural cavity, extensive old adhesions united the right lung to the walls of the chest.

Both *lungs* were very considerably congested, of a dark color, and exuded a large quantity of frothy bloody serum from their cut surfaces. The pericardium contained half-an ounce of limpid serum. The heart was full-sized and rather large. The deposit of fat upon its surface was not in unusual proportion. The heart itself was flabby and all its cavities, both ventricles and auricles, literally empty. The substance of the left ventricle was rather softer than natural and yielded more readily than ordinary under pressure of the finger. No coagula were met with in any of the vessels.

Abdomen.—The viscera of the abdomen presented no marks of congestion or other appearances worthy of note. The brain and lungs when cut emitted an odor regarded by some persons present as aromatic, by others as that of chloroform. This was the case with the lungs in a more decided degree than the brain.

Remarks.—There appeared to be nothing in the case of this patient to forbid the use of chloroform. The trial that had already been made of it was followed by no unpleasant consequences nor did it during inha-

lation produce any immediate effect that excited alarm, the patient showed no reluctance to its use, on the contrary he was anxious to have it administered in both instances. The mode of administration permitted a free admixture of atmospheric air and the quantity used the second time did not exeeed three drachms, and of this there was necessarily a considerable portion wasted. The day preceding a larger quantity had been administered from the same vial to another patient and for at least twenty-five minutes without the slightest bad effect. During this time a luxation of the hip was reduced, a compound fracture of the os brachii explored and a fragment of bone removed, the patient being unconscious of suffering.

The chloroform on being submitted to analysis by Professor Reid, was found to contain nine per cent. of alcohol.

PART SECOND.

CRITICAL ANALYSIS.

ART. X.—*A Treatise on Etherization in Childbirth, illustrated by five hundred and eighty-one cases.* By WALTER CHANNING, M. D., Professor of Midwifery, etc., in the University of Cambridge. Boston: W. D. Ticknor & Company. 1848. 8vo., pp. 400.

No single event in the history of modern therapeutics has so powerfully and so extensively roused the professional mind as the discovery of the anæsthetic power of ether inhalation. Nor is this to be wondered at; for this remarkable discovery was not merely the supplying of the pharmacopœia with a new agent, a new means of fulfilling a well-known indication; the end was as new as the means, the effect as novel as the cause which produced it.

The discoverer and early enthusiastic advocates of the new remedy, or rather of the new practice, claimed that by it surgical operations were to be robbed of all their pain, and of course nearly of all their terror. And soon, by its introduction into obstetric practice, we were assured that the *primal curse* pronounced on woman was to be removed, she was no longer "in sorrow to bring forth children."

Such claims as these were, when first Rumor made us aware of their existence, rejected without consideration, from their mere extravagance; but soon, and long before its application to midwifery, we heard with surprise that the new agent had passed from the hands of dentists, and that the pride of New-England surgery, the illustrious Warren, with a zeal and mental independence as characteristic as it is creditable, had subjected the new agent to the test of his enlightened experience, and found that it had the powers claimed for it and could be used with safety.

And here we will pause for a moment to pay a well-deserved tribute to Dr. Warren and his associates for their enlightened liberality in thus admitting the new practice to the benefit of fair trial. How easy would it have been for them to have turned their backs upon "*the dentist's discovery,*" to have talked of "pain being physiological," etc., etc.; but theirs was a different, a far better spirit; they subjected the new practice to careful trial, and having done so, are enabled to give their opinions, not as the mere "guess-work of the imagination," but as scientific

opinions ought to be given, inductions from extended observation. The result is familiar to all readers, everywhere the discovery was hailed with admiration and surprise, and everywhere, in our own country and in Europe, surgeons hasted to put to trial the new, the wonderful practice. We have said everywhere, but there is an exception to this statement, and one so very curious that it deserves to be noted, if only as a *psychological phenomenon;* we believe few trials have been made of the new practice in Philadelphia; the surgeons generally and obstetricians universally of that great metropolis, having resolved not to try the new practice, to "have neither part nor lot in the matter." Is this very remarkable unanimity a credit to the docility, or an imputation on the independence of professional mind? Elsewhere the case was different, and though little more than two years have elapsed since the first trial by Warren, at the Massachusetts General Hospital, we have now in journals, pamphlets, and more elaborate treatises, reports from hundreds of surgeons and obstetricians who have made trial of the new practice; we have also, what is only second in value to these results of experience, reports from some of the leading physiologists of Europe, of series of well devised and carefully executed experiments on lower animals, made to settle the question—How does this new agent act? What part of the nervous system does it first effect, and in what order are the other parts brought under its influence? Thus should it be—thus may it ever be; let the profession be ever ready to receive improvement from whatever quarter it come, subject it to rigid scrutiny and then appreciate its value.

The means of forming a true estimate of the safety and value, or rather of the safety, for that being given, the objections to its value, whether they come in the shape of references to the Hebrew Bible, or in that of Bavardage, about depriving a fellow creature at an important moment of the control of his mind, will signify nothing with scientific men. The means, then, of appreciating the safety of etherization are multiplying every day, and to them Dr. Channing has made a most important and acceptable addition in his treatise. Our readers will remember that about two years ago, Dr. Channing published in a pamphlet a report of a few cases which he had then attended, in which ether was given. The treatise before us, was at first intended as an amplification of the pamphlet, but like many such things, it grew upon his hands till now we have an octavo of four hundred pages, containing, not only Dr. Channing's own cases, but reports from various physicians in Boston and its vicinity, a history of the ether discovery, references to the fatal cases in surgery, besides a vast deal of matter "*de omnibus rebus et quebusdam aliis,*" which the learned professor would have done well to omit.

Of this work we will now give our readers as good an idea as our limits will allow, but at the outset we must enter our protest against the manner in which it is brought out; we do this with regret, because the frank manner in which the author confesses his literary sins, and attributes them to the true cause, a pressure of professional engagements, might almost disarm censure; but duty to the reading part of the profession compels us not to admit these excuses. A few—a very few days of labor on the author's part, would have saved each one of his readers several hours in the study of this book, and as we hope the number of

his readers will be counted by hundreds, if not by thousands, Dr. Channing will readily see how much of other people's time he has wasted while saving his own. The balance is fearfully against him; then the example—and from a Professor of the University of Cambridge! But we say no more, sorry to have been obliged to say so much.

The first chapter contains an account of the plan and object of the work, but into this is incorporated so much of what is afterwards presented in an amplified form, that it may almost be considered as a brief of the book. His object he declares is to settle, so far as it was possible, the question of the safety of etherization. *Is it safe?* This is the great, the dominant question; and Dr. Channing proceeds to argue this point and to notice some of the objections to its use. Here two letters from Professor Meigs are introduced, one to Simpson of Edinburgh, which, having been published in the Examiner, our readers may have seen; the other, to Dr. Channing, is of course new. Dr. Meigs, as our readers are aware, has never used ether or chloroform, his motives being (in his own words,)" *connected with* or *rather dependent upon my views of the nature and offices of the different parts of the brain.*" Again. " I should hardly yield my opinions to the force of statistical returns, because I have no doubt of some physiological, and therefore needful and useful connection of the pain and the powers of parturition." Well may Dr. Channing say in his comment upon these letters, " transcendental physiology and visionary teachings should not be allowed to touch the question." By the way, in one of these letters the following phrase occurs: " should I exhibit the remedy for pain to a thousand patients in labor, merely to prevent the physiological pain, and for no other reason, and if I should destroy only one of these, I should feel disposed *to clothe me in sackcloth and cast ashes on my head for the remainder of my days.*" Clothe me in sackcloth! Cast ashes on my head! Phoh! Now in all earnestness and with entire respect we ask, why will not Professor Meigs consent to communicate his opinions to his professional brethren without offending their good taste by such ridiculous flourishes of school-boy rhetoric as this.

But to return to Dr. Channing—he replies very courteously to the arguments of Dr. M. and other objectors and then proceeds to his second chapter on the discovery and use of etherization; here there is nothing very new. We will also pass over the two following chapters on the physiological agencies of ether and on the production, signs, etc., of etherization, and the treatment of its abnormal effects. We then come to a chapter on the objections to etherization in childbirth. These are, 1st. Labor is not so painful as to require it. This objection Professor Channing refers, very properly, to the parties who bear, not the doctors who witness the sufferings. What their verdict would be, can very readily be anticipated. 2d objection. Etherization is not certain and may be unsafe. To this Dr. Channing appeals to facts. Facts prove that it is certain, and the object of this treatise is to answer to its safety. 3d. The religious objection. This is so paltry that we were at first sorry that Dr. C. had noticed it, but as it gives him an opportunity to introduce an admirable letter from Professor Noyes of Cambridge, we cease to regret the space this matter occupies. 4th. Moral objection—it may be abused, and it may injure the child. Such objections as these do not detain Dr.

C. long, and need not our readers. We now come to the true pith and marrow of the treatise—the cases—eighty-seven are given in more or less detail and with remarks. Next we have three tables, No. 1, of 516 cases of natural labor—in 358 ether, and in 158 chloroform was given. No. 2, of 28 cases of non-natural labor seen by Dr. Channing. No. 3—24 cases non-natural, for which Dr. C. is indebted to friends who communicated them. Of these cases all those in the first table terminated favorably for the mother, in none were any unfavorable effects of ether noted and of the 46 physicians in whose practice they occurred, thirty-six gave an opinion decidedly and unequivocally favorable to etherization—and of the remainder almost every one speaks favorably with restriction as to purity of the article, selection of case, etc. etc, Here then is an array of facts and opinions founded on facts which the profession will know how to value.

Of the second and third tables, Dr. Channing presents an analysis. They comprehend twenty forceps cases in which all the mothers and fifteen of the children were saved. Four craniotomy cases, mothers all saved. Ten cases of convulsions, six mothers and three children saved. Nine arm presentations, all the mothers and six children saved. Three breech cases—mothers and children saved. One of accidental and two of unavoidable hemorrhage—mothers saved—one child lost. Two twin cases—mothers and children saved. Here we have fifty-one cases of non-natural labor, comprehending a large proportion of the worst variety of cases, and yet only four mothers are lost and these all by convulsions. Thirty-two children are saved, nineteen lost. Dr. Channing does not overstate his case when he says, "The records of medicine do not present such an amount of safety—so many and such perfectly successful results in operative, preternatural and complicated labor as are shown here to have followed etherization." Dr. C. dwells particularly on the advantage of etherization in arm presentions.

The rest of his book is made up of extracts from his correspondence and contains letters from Professor Ware, Bigelow, Drs. Homans, Pierson and many others, giving their experience and opinions. We extract a few lines from the letter of Professor Bigelow that we may say "ditto" to that enlightened physician. Of etherization in childbirth he says, "An experiment not yet settled in all its bearings, but promising much for the relief of human suffering." We now take our leave of Dr. Channing with hearty thanks for the valuable mass of information he has collected. If he has not settled the vexed question he has undoubtedly given facts enough to justify and in our opinion to demand from the profession further trials—a continued use of anæsthetic agents.

That the end proposed to be gained by these means is of great importance few will deny; few experienced obstetricians will doubt that in not a few cases the pain of labor and that inflicted by obstetric operations, especially turning and removal of adherent placenta, is not only a very great present evil, but that it renders convalescence uncertain and protracted. If, without great danger to life, this pain can be mitigated or controlled, great will be the benefit thereby conferred upon woman. That anæsthetics will do this cannot be positively asserted, but that they may do it, every humane mind must ardently hope and devoutly pray.

C. R. G.

ART. XI.—*The Transactions of the American Medical Association, instituted* 1847. Vol. I. Philadelphia: Published by the Association. pp. 403. (Continued from page 80.)

REPORT OF THE COMMITTEE ON PRACTICAL MEDICINE.

[In our last number there appeared an analysis of the report of the committee on "Surgery," including that on "Anæsthetic Agents;" at the commencement of which we promised the readers of the Journal, that there should appear in this, analyses of the reports on "Practical Medicine" and "Medical Literature." To fulfil this promise, it will be necessary to deviate from the order in which the reports appear in the volume. In our next we hope to be able to lay before them, notices of the remainder of the reports contained in the transactions.—ED. *N. Y. Med. Jour.*]

The Report on Practical Medicine is the product of the pen of the eminent Professor of Practice in the College of Physicians and Surgeons of this city. Though limited in extent, it is, as might have been expected, from the able hand to which its compilation was entrusted, highly satisfactory.

Upon the first branch of inquiry intrusted to the committee, that of reporting on the more important improvements effected in this country in the management of individual diseases, the committee is enabled to report neither fully nor satisfactorily. But little, it is justly observed, can be expected to be effected in the limited space of one year. The journals contain, indeed, many suggestions, some hypothetical, others mere modifications of those methods of treatment which have preceded them: indicating indeed, zeal, talent, industry, and research; but not entitled to especial confidence or distinction. One only, and that an application of the surgical art to the treatment of a disease strictly medical, and as such presented through this committee to the notice of the Association, is the plan suggested by Dr. G. Buck of the New-York Hospital, of and for scarifying the affected parts in œdematous laryngitis, highly creditable to the ingenious operator and distinguished surgeon, whose memoir, ably drawn up and illustrated, is contained in the Transactions, (B. I.) it is elsewhere noticed, (see page 70.) The plan offers a valuable addition to our means of treating this formidable disease.

In considering the subject of epidemic maladies, these are arranged by the author of the report, under the three heads many years ago adopted by him in his erudite essay upon the Philosophy of Epidemics, a work which for elegance of style and profundity of conception, research and importance, has had no successor, and must ever hold a very high place in our domestic literature. These are, *contagious*, *infectious*, and *meteorations*. They are defined by one of those well ascertained laws enunciated. No well characterized meteoratious epidemic, it is said, has, during the time of service of the committee, appeared in this New World. The contagious exanthemata seem to have been gradually declining in this city since 1837, and in 1847, the deaths by the three great varieties, smallpox, measles, and scarlatina, were only 473. From data given, Dr. S. infers that there is reason to apprehend, that when these

shall have further declined or ceased, yellow fever will reäppear epidemically in our great northern emporium and the neighboring cities.

From the ravages of epidemic yellow fever, one of the infectious class, our country, with the exception of the cities of New-Orleans, Lafayette, and Mobile, has been exempt during 1847. During the time that this disease was prevalent in the former city, there were but few deaths from the contagious exanthemata, facts conformable to the general laws governing the prevalence of those diseases to which allusion has just been made. But of all the forms of infectious diseases, the one from which the greatest amount of mortality has occurred in most of the larger Atlantic cities of the New-England and Middle states, is typhus.

On examining the records of deaths from this disease for the last 35 years, in the city of New-York, it is found that the disease was epidemic in that period 4 times; in 1818, 1827–28, 1837, and 1846–7. The deaths in 1847 reached the frightful sum of 1396, while in 1846, they numbered only 256. The reporter infers from these facts, and doubtless correctly, that the *diffusion* of typhus is favored by certain periodical meteoratious influences. But the immediate cause of the prevalence of typhus among us during the last year, however much aërial influences may have contributed to the diffusion of the materies morbi and propagation of the disease, was more tangible than this. It consisted in the arrival in our harbor of over 100,000 emigrants, from Great Britain and Europe in 1847. Many of these came, under circumstances of distress, mental and bodily, excellently calculated to engender the typhus *idio-miasm*, in a close steerage in over-crowded ships, on board of which the disease broke out and was raging on arrival. It is not remarkable then that the typhus spread in the hospitals which were provided for their reception, among physicians, nurses and patients; nor that in the city many cases occurred in the apartments occupied by the lower classes of Germans and Irish, who had sheltered their friends. The number of persons admitted into the Marine Hospital at Staten Island, in 1847, was 6932; of this number 5277 were sick with fever, 1662 died. 2229 cases were registered typhus, of which 457 died, and 3020 as remittent and typhus remittent, (many of them ship-fever cases,) of which 205 died. The total number of deaths from typhus at the Quarantine Hospital and within the city of New-York, was scarcely less than 2000. The committee declines entering into the question of the contagiousness or non-contagiousness of typhus, and in the report, it is looked upon as an infectious disease, according to the definition previously given by its learned author.

We regret to be unable to coincide with him in his peculiar views on this subject, but like the unwieldy Athelstane, feel just now no disposition to arm ourselves and oppose our own feeble arguments to those of so doughty a champion as Prof. Smith. We hope that we may enjoy this pleasure ere long, upon another occasion.

With pleasure, however, we observe that in an opinion we have elsewhere defended, that, of the identity of typhus and the typhoid fever, we have the support of Dr. S.'s powerful arm; and it is with not a little pride that we notice that the little periodical which we then edited, and in which the results of our lucubrations are consigned, has furnished the committee with some materials, from which to draw their conclusions. The opinions

therein set forth by the writer, in opposition to the views of Bartlett and others, are fully maintained by Prof. S., and may now, we think, be considered as the established sentiment of the profession.

In the paper before us, the committee proceeds to inquire: 1st, Whether these diseases (typhus and typhoid fever,) differ so much in their symptomatology, as to enable us to characterize them as distinct distempers.

Secondly, whether the morbid anatomy, and particularly the intestinal follicular lesions observed after death, indicate the diseases to be specifically different?

The result of a careful analysis of the symtomatology of the two forms of disease, is, according to the committee, that, so far as it generally enables to form a judgment, they are the same. Speaking of the lenticular, rose-colored eruption, it is declared, and as we are convinced, truly, that there is in regard to the size, color, situation and time of appearance of the eruption, nothing remarkable in the one which is not equally so in the other. The remark is reiterated which we made in our review of Dr. Bartlett's labors on this subject, in the Annalist, vol. 2d, that "the eruption in typhus, though among the characteristics of the disorder, is variable in size and color: *sometimes it is of a rose hue*, but frequently violet or purple: at one time persistent under pressure, and at another evanescent." In the undoubted ship typhus in the New-York Hospital in 1840, and subsequently, "the eruption did, in no respect, differ from that which occurs in typhoid fever." It is sometimes wanting in cases of typhus, in cases where the glands of Peyer are extensively diseased. We are pleased to notice that the reports of the New-York Pathological Society, as published in the journal alluded to, are pressed into the service as furnishing evidence upon this interesting point of inquiry. The reporter asks, "are not the rose-colored spots of the typhoid fever the primary forms and conditions of the petechiæ or maculæ of typhus?" He believes so, and we coincide with him; the testimony of Professor Clark is also adduced to the same purport. He says that "in the proportion of about one-half the typhus fever patients, *a rose-colored* eruption occurs on the body, which frequently, in the progress of the fever, *assumes* a petechial appearance." Diarrhœa, gurgling, tympanites, epistaxis, etc., which have been invoked to aid in constituting these as diseases, "radically and essentially different in nature," are most briefly examined into and dismissed as insufficient to establish the diagnosis.

In typhus and the typhoid fever of Louis, the morbid phenomena are so correspondent in the sensorial, vascular and other functions, are so similarly catenated or related to one another from their accession to their termination, that the attempt to assert and group them, so as to make them express two different diseases, is a labor which, it appears to us, must fail to show any distinction which is found in nature and cognizable by practical minds.

Relatively to the morbid anatomy of typhus and typhoid fever, the committee declare "that in the strict meaning of the term as assigned by Louis, disease of the glands of Peyer and Brunner, is in none of its forms *an anatomical characteristic* of any one species of fever," being met with in disorders, unlike in their causes and dissimilar in their character, the infectious fevers, and also now and then the contagious exanthemata, in genuine typhus and in typhoid or adynamic febrile maladies. They

maintain that there is no solid reason for considering the affection of Peyer's glands a feature distinguishing the typhoid fever of Louis from the typhus of other countries. In no given case of fever during life can it be determined with certainty, that the glands of Peyer are diseased. *Dothenterite* occurs in genuine typhus, while, with typhoid fever, the follicular disease of the bowels is sometimes wanting. The committee has demonstrated the truth of these positions by copious citations from the British and European authorities, and of some of the facts which have been adduced by our own, in favor of the opinion.

The conclusion to which the committee in this concise but very able report have arrived, is that which we have ourselves, some time since, announced as our deliberate conviction, and with this additional testimony to its accuracy, cannot, we think, fail to become soon the general sentiment of the profession on the subject. "In view of the facts which have been stated, it seems to the committee that no reasonable doubt can remain that typhus and typhoid fever are identical." Of this, the able summary of the question presented by the reporter can leave, we think, but little remaining hesitation.

In concluding this hasty notice of the report, we cannot forego expressing our approbation of the elegance, perspicuity, learning and logical accuracy which it displays, which are the well-known characteristics of its distinguished author, "*qui nil tangit quodam ornat.*" He has done his part nobly, but he alone has done his part. Had his colleagues toiled equally hard in obedience to the behests and interests of the Association and the profession, many points necessarily unalluded to would have received notice and elucidation, and a fuller, if not an abler report, would have been the result. W. C. R.

Report of the Committee on Medical Literature.

The Constitution of the American Medical Association define the duties of the Committee on Medical Literature to be, that of preparing an "Annual Report on the general character of the periodical medical publications of the United States, in reference to the more important articles therein presented to the profession, on original American publications, on medical compilations and compends by American writers, on American reprints of Foreign medical works, and on all such measures as may be deemed advisable for encouraging and maintaining a national literature of our own."

It appears that in order to carry out the instructions contained in the latter part of the above extract, and also to lighten the "duties of those who should succeed them in after years," the committee, of whom Dr. Oliver W. Holmes was chairman, thought best, in the first part of the report, "to take a summary retrospect of what has been done in the several branches under their consideration, before proceeding to examine the more recent labors in the same department." By so doing, the committee have taken upon them a self-imposed task, the proper or improper execution of which is fraught with great good or evil to our national medical literature, and as a consequence, our national medical reputation.

It has been said that we have no literature of our own—that the almost sole literary occupation of American physicians consists in editing, with notes and emendations, the productions of foreign physicians. How far the judicious execution of the self-imposed task of the committee might have served to refute this charge, it may, perhaps, be difficult to show. The plea which the committee urge for any imperfections which that portion of the report relating to our own periodical literature, may contain, viz., "that the materials within reach of the committee were by no means complete," will not be recognised or taken into consideration by those who make or believe in the correctness of the charge above alluded to, or who read the transactions abroad. This report has gone forth to the medical profession of the whole world as a summary of the medical literature of this country; and reaching, as it must, a goodly number of the profession of this country, and, to say the least, the medical journals of Europe generally, it is a matter of no small importance that a good account of our doings should go forth. How far this is accomplished in the present report we will now proceed to examine.

The report commences with an account of the "*Periodical Medical Publications of the United States,*" in which it is correctly said, that "the plan of the first medical periodical publication which appeared in this country, was conceived by Dr. Elihu H. Smith, of New-York. He associated in his enterprise Dr. Edward Miller and Dr. Samuel L. Mitchell, and in August, 1797, the first number of the new journal appeared, under the name of the *New-York Medical Repository.* In the hands of different editors it continued to be published for many years, until it reached its twenty-third volume."

After this follows a short eulogy of its originator, and a very slight and imperfect allusion to its contents and character. "As doing justice to the pioneer journal of the western hemisphere," it does not to us, and will not, we are inclined to believe, by the profession, be considered as a fair and creditable statement of the journal of which Dr. Thatcher thus spoke—"The commencement of this publication undoubtedly forms an era in the literary and medical history of our country. No work of a similar kind had ever appeared in the United States. Its influence in exciting and recording medical inquiries, and in improving medical science, soon became apparent. It led to the establishment of other and similar works in different parts of our own country, as well as of Europe; and may thus, with great truth, be said to have contributed more largely than any other single publication to that taste for medical investigation and improvement, which has been, for a number of years, so conspicuously and rapidly advancing on this side of the Atlantic."

Nor is this all. In the short account given of its contents, we learn, for the first time, "that a letter from Dr. Stevens (not Dr. Stearns) in its eleventh volume, introduced to the world the wonderful properties of ergot." This, to the fame of Dr. Stearns, all must admit, is a serious matter—a mistake which cannot be easily rectified—and one which, to the reputation and honor of the American medical profession, is of more importance than the awarding of "new honors" to the names of Louis or John Hunter.

The report now goes on to state, that the publication of this journal was followed, in a few years, by that of *The Philadelphia Medical and*

Physical Journal, (1804). After which no mention is made of the name or character of any other, until that of the American Medical and Philosophical Register, (New-York, 1810,) during which time there appeared *The Philadelphia Medical Museum*, (1805); *Baltimore Medical and Physical Recorder*, (1808); and *The New-York Medical and Philosophical Journal and Review*, (1809); all of which, if we except the second named, passed through a longer and more successful career than the one mentioned by the committee. After the American Medical and Phlosophical Register, is noticed *The Eclectic Repertory*, (not "*Repository*,") (Philadelphia, 1811,) and following this, *The New-England Journal of Medicine and Surgery*, (1812). No mention is made of the Baltimore Medical and Philosopical Lyceum, (1811). Next in the order of date was the American Medical Recorder, established in 1818 and continued until 1829. A very short notice only of a small part of its contents is taken. *The Philadelphia Journal of the Medical and Physical Sciences*, is mentioned as having appeared in 1820, and a very good summary of its principal articles is given. The same cannot, however, be said of the notice taken of *The New-York Medical and Physical Journal*, (1822,) a work containing an unusually large number of valuable original communications. In the interval which occurred between the commencement of this work and that of *The North American Medical and Surgical Journal*, 1826, there appeared *The Western Quarterly Medical Reporter*, (*Cincinnati*, 1822,) *The Hartford Analectic Journal of Medicine and Surgery*, (1823,) *The Boston Medical Intelligencer*, (1823,) *The Medical Review and Analectic Journal*, (Philadelphia, 1824,) *The New-York Monthly Chronicle of Medicine and Surgery*, (1824,) and *The Carolina Journal of Medicine, Science and Agriculture*, (Charleston, 1825,) six in all, not one of which are, by name even, mentioned in the report. With the notice of the North American Medical and Surgical Journal, the committee closes the enumeration of the defunct periodical medical publications: why they should pass by without the slightest notice the following publications, which appeared after this, it is difficult to say: *The New-York Medical Journal*, (1830,) *North American Archives of Medical and Surgical Science*, (Baltimore, 1835,) *The Eclectic Journal of Medicine*, (Philadelphia, 1836,) *American Medical Intelligencer*, (Philadelphia, 1837,) *The United States Medical and Surgical Journal*, *The Maryland Medical and Surgical Journal*, *The New-York Journal of Medicine and Surgery*, (1839,) *The New-York Lancet*, (1842,) *The Bulletin of Medical Science*, (1843.) Neither is there any mention made of those exceedingly valuable papers contained in the early volumes of the Transactions of the American Philosophical Society—an excellent summary of which may be found in the New-York Medical and Physical Journal, vol. 6th, pp. 399, 568. The necessity for the notice of the foregoing, and of other journals which the country may have furnished, will be found in the fact that no where else could such notice be taken with so much propriety and service. Many of them contain exceedingly able papers—papers which have served to build up the reputation of their authors in this country as well as Europe. And above all, it appears from the fact that to this report medical men will look for a *complete* synopsis of our national medical literature.

Following the enumeration of the early periodical publications is found a list of all the journals with which the committee are acquainted, now

published in this country, which list we subjoin: "The only quarterly publication devoted to medical subjects generally, is the *American Journal of Medical Sciences*, (Philadelphia). Those published every two months, are the *New-York Journal of Medicine*, the *Charleston Medical Journal and Review*, the *New-Orleans Medical and Surgical Journal*, and the *Western Lancet*, (Cincinnati). The monthly journals are the *Buffalo Medical Journal*, the *Medical Examiner*, (Philadelphia,) the *Illinois and Indiana Medical and Surgical Journal*, (Chicago,) the *Missouri Medical and Surgical Journal*, (St. Louis,) the *St. Louis Medical and Surgical Journal*, the *Western Journal of Medicine and Surgery*, the *Southern Medical and Surgical Journal*, (Augusta, Georgia,) the *Medical News and Library*, (Philadelphia,) and the *South-western Medical Advocate*, (Memphis). Two weekly journals are published, the *Boston Medical and Surgical Journal*, and the *Annalist*, at New-York, to which must be added a small sheet called the *Journal of Health*, published in Boston. *The New-Jersey Medical Reporter and Transactions of the New-Jersey Medical Society*, is the title of a periodical published at Burlington, N. J., the first number of which appeared in October last, and which is promised to be continued quarterly. In addition to the publications just enumerated, there are the *American Journal of Insanity*, (Utica,) the *American Journal of Pharmacy*, (Philadelphia,) and the *American Journal and Library of Dental Science*, (Baltimore); each of which is a prominent representation of the department to which it is devoted."

In connection with the subject of periodical literature, the notice of reports and transactions of various societies and public institutions is introduced. Mention is made of *The Summary of the Transactions of the College of Physicians of Philadelphia*, *The Transactions of the Medical Society of the State of New-York*, and those of the *Massachusetts Medical Society*; after which the committee proceed to a brief enumeration of the more important articles contained in the medical periodicals of the country. The execution of this task has been, we are pleased to say, accomplished with credit to the committee, and honor to our medical literature.

In the execution of the second division of their task, viz., that of reporting on the general character of American medical publications, on medical compilations and compends by American writers, on American reprints of foreign medical works, etc., the committee followed the same retrospective plan instituted in the first. "For the sake of convenience, these works have been arranged under general heads, the first place being usually given to original productions and compilations by American authors, the second to translations from other languages, and the third to reprints of books written or translated elsewhere."

The summary character of this portion of the report forbids an analysis of its contents. We shall, therefore, pass on to that portion which speaks of the character and tendencies of American medical literature. Before doing so, however, it may be as well to correct one or two mistakes into which the committee have fallen relating to publications of medical works. In speaking of eruptive fevers, the committee say, that "the only foreign work on the eruptive fevers which has been republished, as far as the committee are aware,

is that of Dr. Gregory, consisting of his lectures delivered at St. Thomas' Hospital." The lectures of Dr. Gregory, it is well known, have been announced as being in press for some time, but as yet they have not made their appearance. We sincerely hope ere long to see them in an American dress, with additions from the practical pen of the gentleman who has them in charge.

In mentioning the work of Willis and Bird on urinary diseases, which were published some years since, the promised work of Dr. Clymer is mentioned as having been published. These, although small mistakes, mar somewhat the accuracy of the report.

In alluding to the fact that at the present time some twenty or more medical journals are in existence, the committee assert that "some principle in addition to the wants of the reading community, must exist to account for such inordinate fecundity in this particular department. This," say they, "is to be found in the homely fact, that a medical journal is a convenient ally and advertising medium for public institutions and publishing establishments, and that by the *help yourself* system so generally established, it is not necessarily much harder to edit a medical journal than to furnish the "notes and additions" to the work of a British author."

"Not necessarily much harder to edit a medical journal than to furnish the 'notes and additions' to the work of a British author"! Certainly the chairman of the committee on medical literature cannot be acquainted with the amount of mental toil and labor which devolve upon the editor of a medical journal, or else he would not have put forth this assertion more especially in face of the following statistics, which he furnishes when speaking of the amount of labor bestowed by editors of foreign works republished in this country: "The following calculation of the proportion added to different recently-published works, taken at random, will show the average amount of material so contributed. The editor's proportion was, in two instances, one-fourth; in two more, one-eighth; in one, one-ninth; in another, one-tenth; in others, one-fifteenth, one-seventeeth, one-nineteenth, one-twentieth, one-twenty-eighth, one-fifty-ninth, one-sixty-fifth, one-ninetieth, one hundred and seventh, and, in one instance, such a sprinkling as a single penful of ink might furnish, and leave enough to spare for a flourishing autograph."

The limits which we had marked out for this will not allow of a farther notice of this portion of it—neither do we think it necessary. The value or reputation of the American medical periodical press will not, we feel certain, be much injured by such statements as the foregoing. They carry with them their antidote.

In marking out the course which must be pursued in order to remedy the evils which grow out of the "great *forte* of American medical scholarship, which has hitherto consisted in '*editing*' the works of British authors"—"the habit of indolence generated by the easy acquisition of a foreign literature, which seems to answer every necessary purpose"—"and the habit of negligence which springs from the curious fact of a constant parallelism, which is not identity, in most natural objects and phenomena of the new world, with something of the olden continent," the committee state that "the American constitution

must be studied by itself—it differs from the European in outline, in proportions, in the obvious characters of the skin and hair—why should it not differ in the susceptibilities which, awakened, become disease? The American climate remoulds the European, and casts a new die of humanity—will it not generate causes of disease different from those of the Old World? Over this virgin soil a new Flora is weaving her long web of tapestry, flowing from the lichens of Katahdin to the myrtles of Cape Sable; is there no undiscovered healing in any of its leafy and blossoming folds? Here is the true field for the American medical intellect; not to set English portraits of disease in American frames; not to trust for immortality to a little more or less of manual adroitness or questionable hardihood; but to coöperate with that fast-gathering band of students who, in other departments of science, are studying what nature has done with her American elements, and teach us what disease is here, how it is generated, and what kindly antidotes have been sown in the same furrows with its fatal seeds." Here, certainly, is a vast field for labor. A field which may well and honorably be occupied by the best talent of the profession. But has there nothing been done in this field? Does not the American medical periodical literature furnish ample evidence that not a few of the members of our profession have devoted themselves to a consideration of the very subjects mentioned in the foregoing extract? Does not the New-York Medical Repository, the New-England Journal of Medicine and Surgery, the Philadelphia Journal of the Medical and Physical Sciences, the American Medical Recorder, the American Journal of the Medical Sciences, and, in fact, all our home periodicals, furnish conclusive evidence of the zeal and untiring industry of the profession in pursuing the same track marked out by the committee? Nor is this all. Are not the works of Rush, Currie, Barton, Bigelow, Hosack, Thatcher, Gallup, Eberle, North, Hale, Smith, Chapman, Jackson, Forry, Bartlett, Dickson, Harrison, Wood, etc., etc., valuable mementoes of the interest which has been and is still felt in these very subjects?

In closing their report, "the committee are not prepared to propose to the Association any special organized mode of operation for encouraging and maintaining a national literature of our own." This, perhaps, was and ever will be impossible; and, in the language which closes the report, it may be truly said, that "it is by indirect means rather than by direct contrivances, that this desirable object is to be promoted; by elevating the standard of education; by the stern exclusion of unworthy articles from medical journals; by the substitution of original for parasitical authorship; and by introducing such a tone of general scholarship and scientific cultivation that the finer class of intellects may be drawn towards the ranks of the medical profession."

In conclusion, it may perhaps be urged as an apology for the omissions contained in this report, that neither the time nor space allowed the committee would admit of a more complete notice of the early medical productions of this country. If such were the case, would it not have been advisable for the committee to have reported progress and asked for an extension of the time? Or, if this was by them deemed not practicable, would it not have been best to have omitted altogether that portion which treats of the early medical periodicals so sparingly noticed? So, at least, it seems to us, and so, we fear, many of the profession will feel,

who read it, in the Transactions, and are best conversant with the earlier literature of the United States.

BIBLIOGRAPHICAL NOTICES.

ART. XII.—*Lectures on Venereal and other Diseases, arising from Sexual Intercourse, delivered in the Summer of* 1847, *at the Hôpital Du Midie, Paris.* By M. RICORD. Reported and translated by VICTOR DE MERIC, M. D., M. R. S. E. Philadelphia: Ed. Barrington & George D. Haswell, 1849. 12mo., pp. 298.

ANOTHER emanation from the prolific brain of the great pioneer in the field of syphilitic investigation, M. Ricord. The little work before us contains a complete resumé of all the modern doctrines in relation to venereal diseases, their origin, pathology, mode of propagation, prognosis and treatment. Our author's name is so intimately connected with all the new and valuable discoveries in this department of scientific research, that few who desire full and thorough acquaintance with the subject in question, will fail to make his opinions and arguments themes of study and sober reflection. The present lectures, clinical in their character, and appearing in a condensed form, seem to fill the hiatus which the profession at large have for some years felt. The original treatise of M. Ricord, published in 1842, was for the most part a philosophical work, having for its main object the application of the doctrine of inoculation, in the diagnosis of the various maladies denominated syphilitic. Its practical details were meagre in the extreme. His later and more extensive work, embellished by beautiful and life-like illustrations, was so expensive as to be beyond the reach of a vast majority of the profession. The volume now under consideration is so eminently practical, so concise, and yet embodying all the more modern discoveries and methods of treatment, that it will be found a most invaluable aid and guide to the student in the treatment of this class of affections.

A synopsis of the contents will place before the reader a view of the number and importance of the subjects treated. It is divided into 28 Lectures, as follows: Blenorrhagia and Chancre. Blenorrhagia; History, Localities, Causes, Symptoms, Progress, Duration, Complication, Diagnosis, Prognosis, Prophylaxis. Treatment of Blenorrhagia; Operations for Phymosis and Paraphymosis. Urethral Blenorrhagia, Treatment of Blenorrhagia. M. Ricord's Defence of the New Doctrine. Blenorrhagic Affection of the Testis. Vaginal Blenorrhagia. Treatment of Blenorrhagic Ophthalmia. Phenomena resulting from the Inoculation of Virulent Matter. Duration and Progress of the Syphilitic period, Phagedenic and Indurated Chancre. Urethral and Anal Chancres, Prognosis. Treatment of Chancre, Prophylaxis, Abortive and Subsequent Treatment. Treatment of Phagedenic Ulcerations, Bubo. Prognosis of Bubo, Treatment; Constitutional Syphilis, Hereditary. Continuation of Hereditary Syphilis; Mechanism of the Infection; Premonitory Symptoms, Eruptions, etc.; Mucous Papules or Condylomata. Secondary Eruption,

General characters and differential Diagnosis. Syphilitic Iritis, Onychia, Affections of Mucous Membranes. Treatment of Secondary Syphilis, Action of Mercury, Anti-Mercurial Medication, Doses, etc. Tertiary Symptoms, Sarcocele. Treatment of Syphilitic Sarcocele, Tertiary Muscular Affections, Elastic Tumors, Lesions of the Fibrous and Osseous Tissues. Nodes, Syphilitic Exostosis, Ostitis, Caries and Necrosis. Tertiary Affections of the Lacrymal apparatus, Treatment of Tertiary Symptoms. Treatment of Nodes; General recapitulation. Formulary of Medicines.

We cannot withhold our commendation of the masterly manner in which these subjects are discussed. Speculation and theory gives place to sound practical precepts, and invaluable suggestions for treatment. The limits of our remarks will not allow quotations sufficiently extensive to exhibit the scope and tenor of the work. One or two brief extracts upon the more intricate points in the philosophy of Syphilis must suffice. Upon the vexed question of Hereditary Syphilis, our author remarks:

"We all know that the transmission of the disease from parents to children is an undeniable fact; but it is nevertheless oftentimes very difficult to reäscend to the actual source of the mischief when both the de jure father and mother are quite free from any syphilitic accident; there is no choice left in cases of this description, and we are driven to suspect that a third party has been concerned." * * * *

Supposing a female to be fecundated by an affected agency, how will *she* be affected by carrying a poisoned fœtus? According to certain well-observed facts we may infer that the mother can receive the germs of the disease from her child, so that in such a case she suffers from the syphilitic infection by the instrumentality of the fœtus in utero. It had hitherto been believed that the mother received the infection directly from the father, and that she transmitted to her offspring the diathesis with which she became imbued; but this never happens except the mother has been subjected to the contagion of *primary sores*, and she herself had had an indurated chancre, as well as secondary symptoms consequent upon such chancre. I am ready to acknowledge that a woman may give birth to an infected child without experiencing any inconvenience herself; the father, in such a case, transmits the poison by reason of the secondary symptoms which are upon him at the time. If he had had *primary* symptoms he would have diseased the mother direct, and the effect may still have reached the child."

And again he remarks: "Remember that there is no such thing as an infection of the child by the mother, she having been contaminated by the father; but that, as I have said before, the father procreates an infected child, which may then propagate the secondary poison to the mother; for where there are no children the mother does not suffer. But the mother to conceive whilst herself and the father are quite free from the syphilitic diathesis, and that this diathesis happens subsequently to arise with the father, can it be transmitted to the child?

"I do not hesitate in answering this question in the negative, and I must look upon that opinion as very absurd, which supposes that the father can contaminate the child through the membranes. In order that a child, the offspring of healthy parents, should be at all infected after it has existed more or less time in utero, the mother must, by direct

inoculation, become affected with an indurated chancre, and all its consequences; then the fœtus may inherit the diathesis of the mother."

In conclusion, we regard the work as one which will commend itself to the profession as the most concise and able exposition of the doctrines of syphilis. The translation is remarkable for the boldness and vigor of its style, and the typographical execution is equally creditable to the publishers. H. M. G.

ART. XIII.—*A Manual of Physiology.* By WILLIAM SENHOUSE KIRKES, M. D., assisted by JAMES PAGET, Lecturer on General Anatomy and Physiology at St. Bartholomew's Hospital. With one hundred and eighteen illustrations on wood. Philadelphia: Lea and Blanchard, 1848, 12mo., pp. 552.

THIS is an exact reprint without alterations or additions, of the text of an English work. The large size and great expense of "Müller's Elements of Physiology," has rendered it unavailable for the general use of students. With the intention of meeting their wants, it was announced some time since in London, that a volume would soon appear containing a reduction of its contents—one which should be more nearly proportionate to the share of time which can be devoted to physiology, as one of the branches of medical science, studied during the period of pupilage.

The present work is in part the fulfilment of that announcement, many of its chapters, viz., those on *Motion*, *Voice* and *Speech*, the *Senses*, *Generation* and *Development*, are chiefly abstracts of corresponding portions of that work and of the supplement by Drs. Baley and Kirkes. The progress of physiology during the last few years has been such that it was found necessary, by the authors, to deviate from the announced plan in regard to the remaining portions of the work and thus we have now laid before us a text book which in all respects appears to be well adapted to the use of students. In its preface we are informed that "in writing this work the primary object has been to give such an account of the facts and generally admitted principles of physiology as may be conveniently consulted by any engaged in the study of the science; and, more especially, such a one as the student may most advantageously use during his attendance upon lectures and in preparing for examinations." From the perusal which we have given this little volume, we are inclined to the belief that the object of its authors has been fully accomplished, and that a more convenient and useful volume cannot be found for the use of the student. In perusing some of the chapters, particularly that on the "*Vital Properties of the Organs and Tissues of the Human Body*" and the one on "*Generation* and *Development*," we were forcibly struck with the amount of information condensed in so small a compass. This to the student is a great desideratum, and one not to be found in the more voluminous works. We can most cheerfully recommend this volume to both student and practitioner as eminently calculated to subserve their wants. The engravings and typographical execution of the volume is good; items which add much to its value. We thank the publishers for the republication of it, and sincerely hope that the profession will prize the work.

ART. XIV.—*The Nature and Treatment of Deafness and Diseases of the Ear; and the Treatment of the Deaf and Dumb.* By WILLIAM DUFTON, M. R. C. S. Philadelphia: Lea and Blanchard. 1848. 12mo., pp. 120.

THERE are probably no diseases in which the profession at large manifest so little interest and in the treatment of which they show so much empiricism as in the diseases of the ear. Often have we seen active internal inflammation allowed to go on without any such thing as a correspondingly active treatment having been pursued, until complete destruction of the tympanum has taken place, followed by the discharge of pus, which, for the first time, seriously arrested the attention of the medical attendant. Such, however, should not be the case, our attention should be arrested by any unusual complaint made in reference to the diseases of the ear and a careful watch instituted, active treatment should at once be adopted when acute pain deep in the ear first manifests itself. That the auditory passages are extremely complicated in their structure all admit—that their diseases are obscure and not easily diagnosticated in many instances is equally certain, and from these facts alone the conclusion may be correctly drawn, that whatever tends to throw any information on the obscurities of aural surgery should at once be laid before the profession.

The work before us lays no claim to new inventions or discoveries but is a plain statement of its author's knowledge and practice in the treatment of the diseases of the ear. It is divided into four chapters. The first treats of the "*Acute and Chronic Inflammation of the Ear.*" In this chapter both external and internal inflammation is treated of. The second, "*Those Diseases of the Ear not Purely Inflammatory,*" in this chapter are included accumulation of hardened cerumen, herpetic ulcerations, foreign bodies in the meatus, worms and insects in the ear, and fungous excrescences and polypi. Chapter third is devoted to a consideration of the "*Nervous Diseases of the Ear,*" in which is mentioned erythismus and torpor. Chapter fourth closes the volume; it is devoted to some observations on the "*Deaf and Dumb.*" Through the work are scattered several interesting cases which illustrate important principles either in the pathology or treatment of the diseases of the ear. We have read the work with interest and profit.

ART. XV.—*An Illustrated System of Human Anatomy, Special, General and Microscopic.* By SAMUEL GEORGE MORTON, M. D., Penn. and Edinb., Member of the Medical Societies of Philadelphia, New-York, Boston, Edinburgh and Stockholm. Author of "Crania Americana," "Crania Ægyptiaca," etc., etc. With three hundred and ninety-one engravings on wood. Philadelphia: Grigg, Elliot & Co. 1849. Royal 8vo., pp. 642.

WE do not remember, in our short editorial career, when a more splendid volume has been laid before us than this. The great advances made in microscopic anatomy, histology, or the science of tissues, has rendered it necessary that a work on the anatomy of the human body should contain a careful summary of its truths. "It has already banished a legion

of venerable conjectures, and substituted simple truth for vague hypothesis; and by unravelling the very germs of organized and organizable matter, has taught us the origin and development of the tissues, together with a portion at least of their hitherto doubtful functions." All the well-ascertained facts relating to this department which are necessary for the student to understand are here posted up, and we know of no volume where this information can be obtained in so condensed form. So much of the elementary principles of physiology as cannot be separated from anatomy, we perceive, are here contained—every day blends more intimately these two sciences together, and if we mistake not, the time will soon come when the student of the one must equally well understand the facts and truths of the other. Dr. Morton has here shown himself thoroughly acquainted with the progress of anatomical research, and we feel assured that the untiring zeal which he has manifested in all departments of our noble science is no where more conspicuous than in this. Of this much we are certain, that the truly honorable desire which he has "to be enrolled among the expositors of a science which has occupied many of the best years of his life," will be fully realized, (if not at present it will surely be in coming time.)

This volume is printed on *excellent* paper, and the illustrations on wood are perfect specimens of the art. We freely recommend it to the whole profession, particularly students, who, we are certain, will not fail at once to recognise the superior merits of this book—a thorough knowledge of which will lay the foundations of anatomical science, without which they cannot be successful or scientific practitioners, deep in their memories. We shall call attention to this volume again in a future number; mean time we would say to all, purchase it.

Art. XVI.—*Observations on the Pathology of Croup, with Remarks on its Treatment by Topical Medication.* By Horace Green, A. M., M. D.,etc. etc. New-York and London: John Wiley. 1849. 12mo., pp. 115.

Our space will only admit of a passing notice of these "Observations" at the present time—in a future number we shall call attention to it, and then enter fully into a consideration of the doctrines therein contained. On the present occasion we can only say that the typographical execution of the work is excellent, the paper is neat and no pains have been spared by the publishers to render it an attractive volume. The distinctive features which characterize the work are the author's views in relation to the strict pathological anatomy of croup and its treatment by topical applications made directly to the parts diseased.

Art. XVII.—*Summary of the Transactions of the College of Physicians, Philadelphia.* (From September 6th, 1848, to January 2d, 1849, inclusive,) pp. 46.

Transactions of the Medical Association of Southern Central New-York, convened at Ithaca, June, 1848, pp. 16.

The summary of the transactions of the College of Physicians of Phila-

delphia contains the yearly report on the "Theory and Practice of Medicine," by Dr. Choates—the annual report on Midwifery, by Dr. Griscom—an obituary notice of the late Henry Neill, M. D.—various discussions on reports of cases and on Anæsthesia—portions of which may be found contained in our American Retrospect in this number.

The Transactions of the Medical Association of Southern Central New-York, bear good evidence of the determination of the profession in that section of this state, to husband all their resources for mutual improvement. The Transactions contain, beside the regular business of organization, discussions on various subjects—reports of cases—an essay on lumbar abscess, by Dr. Hyde—and a report on the epidemic dysentery which has been so fatal in certain portions of the northern and eastern States. Portions of this report we will endeavor to give our readers in our next. The following is a list of the officers of the Association, *President*, Miles Goodyear, M. D., of Cortland. *Vice Presidents*, E. L. Hart, M. D., of Elmira, Silas West, M. D., of Binghamton. *Recording Secretary*, Charles E. Washburn, M. D., of Binghamton. *Assistant Recording Secretary*, James H. Jerome, M. D., of Trumansburgh. *Corresponding Secretary*, Caleb Greene, M. D., of Homer. *Treasurer*, S. H. French, M. D., of Lisle.

Art. XVIII.—*Transactions of the New-York State Agricultural Society, with an Abstract of the Proceedings of the County Agricultural Societies.* Vol. 7, 1847. Albany: 1848, 8vo., pp. 799.

This volume we intended to have noticed in our last number, circumstances beyond our control prevented us from so doing. It contains a large number of valuable papers, which, to many *will* and to all *ought* to prove interesting, one particularly has attracted our attention. It is the address of A. H. Stevens, M. D., President of the College of Physicians and Surgeons, on the Food of Plants. Originality of thought, applying of recent discoveries in chemistry to the growth and development of plants, and an earnest desire to see science in all its branches fostered and encouraged, characterize this address. Several new views are here for the first time developed to the world. A synopsis of which we would most gladly present to our readers, but our limited space at present will not admit of it.

PART THIRD.

EDITORIAL

AND

AMERICAN MEDICAL RETROSPECT.

Progress of Cholera in the United States.—Since the date of our last editorial, more authentic information has come to hand in regard to the progress of this disease in the South and South-western States. In this city there has no new case occurred since the one on the 20th of December, and at the quarantine station, (S. I.,) none since January 4th. At New-Orleans the disease has prevailed to a great extent. On the 12th of December, 1848, the ship Swanton, from Havre, arrived at this place with two cases on board. When she left Havre the passengers and crew were all in good health, and there was no cholera in that port, but some of the passengers were from Germany, where the cholera was raging. When about two weeks at sea the disease broke out, and in the course of a few days seventeen persons died and were thrown overboard. On her arrival at New-Orleans there were two cases on board, and they were, on the 12th, taken into the Charity Hospital The following day several cases appeared about the shipping and in the vicinity of the wharves. The disease continued now to spread rapidly, and yet notwithstanding this, the Board of Health reported that the disease then occurring was an aggravated form of cholera morbus. On the 23d, however, they reported the disease to be true cholera, and declared it to prevail in an epidemic form. The following is said to be an official statement of the number of fatal cases up to Jan. 5th, 1849. (We extract only a part of it):

"For the week ending December 16th, 17 deaths; from the 16th to 21st, 87; on the 22d, 46; 24th, 84; 25th, 77; 27th, 61; 28th, 92; 29th, 84; 31st, 71; January 2, 84; January 4, 39; January 5, 44. Whole number of deaths from Cholera, from the 11th of Dec. to the 5th of January, inclusive, 1,115."

Since this time the disease has been gradually disappearing. On 6th, the deaths were 38. And on the 8th the Board of Health reported the disease "rapidly disappearing and no longer epidemic." On the 16th there were 15 deaths. On the 22d there were but four, and the Board of Health had discontinued making their daily reports. On the 7th of February the city was said to be free from this dreadful scourge.

From New-Orleans it extended in different directions. Many cases oc-

curred on the upward bound boats. And on the 24th of December, it is reported that several cases had occurred at Vicksburg. On the same day, it is said that a patient with the disease died at Cincinnati. Another on the 24th, from which time it gradually increased, and on the second of January, 1849, there were six deaths. It does not appear that the disease became at all epidemic in this place, for on the 7th there were but four deaths. And on the 10th the city was reported to be free from the disease.

During the time of its prevalence at New-Orleans and Cincinnati, cases continued to occur on board the steamboats plying on the river; such also was the case in the several cities intermediate between these two places. On the 8th of January, at Memphis, it was reported that the average number of deaths per day was ten. Six cases were reported in St. Louis on the 17th of January; and on the 24th, the Board of Health reported 17 cases as having occurred through the week. It is said that the disease has also appeared at Mobile and Montgomery, and that at the former place there were 13 deaths during the week ending the 3d of January. It has also made its appearance in Texas, in as severe a form as in New-Orleans. At Fort Lawson, the 8th Infantry have suffered horribly; forty deaths occurred in one night.

The treatment found most successful by Dr. Whiting, in the disease at the quarantine station, (S. I.,) was "calomel in scruple doses, combined with opium and camphor, followed, at two or three hours' interval, by small doses of calomel, until reaction is indicated by some action of the liver. This plan, combined with the faithful application of heat externally, etc., I am satisfied has proved of most advantage in the cases which have come under my notice." At a later period in the disease, it is said that five grains of calomel, with a quarter of a grain of morphia, is at first given to an adult; in half an hour or one hour a scruple dose of calomel is exhibited, and is usually retained. Afterwards a pill of cal. grs. 5, sulph. morphine, gr. ¼, is given every one, two, or three hours, as the symptoms may indicate. "In eight cases, large doses of calomel, capsicum, and camphor, as proposed by Dr. Cartwright, were carefully tried, combined with the rubbing in of hot tincture of capsicum. But the result did not encourage the continuation of the treatment." "Chloroform has been administered in a number of cases, carefully and repeatedly, and at first gave some hope that it would prove a successful remedy, but no other permanent good has resulted from its use but to relieve the spasms and cramps." In this disease, as it has appeared here, "there has been but one stage—that of collapse. Although every pains have been taken to detect the first deviations from health, directions given to all to communicate them at once, and persons appointed to inspect them constantly, and a physician to pass among them at all hours of the day and night, the first intimations were the extreme symptoms, defying the most powerful and decided remedies." The average duration of the disease in adults was ten hours—in children four. The appearances after death were "a shrunk and shrivelled livid exterior, a gorged and congested condition of the internal organs. The meninges and substance of the brain, and all its vessels, unusually red, either from actual congestion or the retention of the *cruror* of the blood, while the serum is drawn

off. The lungs, liver, spleen, heart, intestines, and kidneys, presented the same deepened color. The mucous lining of the bronchial tubes was much congested."

In New-Orleans, Dr. Wederstrandt, of the Charity Hospital, says:—"The disease here seems to consist of three stages in most cases: first, a feeling of malaise and diarrhœa; next comes on the vomiting and purging of rice-water discharges, and cramps; thirdly, the cold stage, with the clammy sweat and suppression of urine. The intelligence remains intact until very late. The disease has proved fatal here in so short a time as three hours. Oftener it is protracted to twelve and fifteen, and rarely beyond twenty-four hours. The violence of the pain in the stomach, and vomiting and purging, does not always afford a criterion for an unfavorable prognosis, for many patients recover rapidly in a few hours after being so attacked, declaring themselves nearly as well as ever. About half an hour after death, the body, which was as cold as ice just before, becomes as warm as in health; and the cramps or contractions of the muscles, which annoyed the patient so much during life, continue for at least half an hour, and in some cases nearly an hour after death. We treat the disease on general principles, and according to the indications of each individual case. In the early stage, we have had reason to be satisfied with the preparations of opium and counter-irritants. Some physicians use a large dose of opium and quinine in the beginning, when they get their cases early; they give from thirty to forty drops, and a drachm of tincture of opium, with half a drachm of quinine, for a single dose, and speak highly of their success. In a few cases I have thought that the practice did good, but I have not used it to any great extent. When brought to us, which they generally are, in the cold stage, we use stimulants externally and internally, with nourishing broths, and several have re-acted under this treatment, and finally recovered. Males and females, young and old, are alike subjects for this disease; but far more men than women are attacked. We have seen many children die of it, some under five years, and a few old people at a very advanced age."

Such appears to be, (so far as we have been able to gather them,) some of the particulars of the progress and treatment of this dreadful disease, in this country, up to the present time. From the data furnished, it seems that the disease has appeared only in an epidemic form at New-Orleans and, *perhaps*, in Texas, (we say perhaps, for our data on this part of its history are particularly unsatisfactory.) Do not the facts thus far developed in its progress favor the idea that the disease was imported into this city by the ship New-York—into New-Orleans by the ship Swanton, and by steamboats from the latter place, transported to Cincinnati, and the intermediate places along the river. And above all, do they not seem to favor the doctrine of its *communicable* character?

New-York Academy of Medicine.—The regular annual meeting of the Academy of Medicine was held on the 3d, and an adjourned meeting on the

9th of January, 1849, at which the following officers and standing committees were elected to serve for the present year: *Pres.*, VALENTINE MOTT, M. D.; *Vice Pres.*, ISAAC WOOD, M. D., J. R. MANLEY, M. D., GALEN CARTER, M. D. and THOMAS COCK, M. D.; *Rec. Sec.*, J. L. VANDERVOORT, M. D.; *Assist. Sec.*, T. M. FRANKLIN, M. D.; *Dom. Cor. Sec.*, W. C. ROBERTS, M. D.; *For. Cor. Sec.*, JOHN G. ADAMS, M. D.; *Treas.*, J. O. POND, M. D.; *Lib.*, T. F. COCK, M. D.

Committee on Admissions, Drs. F. Campbell Stewart, Ed. L. Beadle, Wm. P. Buel, Gurdon Buck and O. S. Bartles.

Committee on Medical Ethics, Drs. J. W. Francis, J. R. Manley, Isaac Wood, A. H. Stevens and J. P. Batchelder.

Committee on Finance, Drs. A. C. Post, S. P. White, J. O. Stone, W. N. Blakeman and J. C. Bliss.

Committee on Publication, Drs. Jos. M. Smith, Wm. C. Roberts, H. D. Bulkley, S. T. Hubbard and M. L. Taft.

Executive Committee, Drs. Galen Carter, J. R. Van Kleek, Joel Foster, J. G. Adams and J. Anderson.

The installation of Prof. Mott as President of the Academy took place at the regular monthly meeting, Feb. 7, on which occasion he delivered his inaugural address. The subjects chosen were cholera and ship fever.

PHILADELPHIA MEDICAL EXAMINER.—The talented and accomplished editor of this journal, Prof. Robert M. Huston, has retired from the editorial charge of it, and is followed by Francis G. Smith, M. D., and David H. Tucker, M. D. Prof. Huston ever evinced an able yet ardent fervor in the management of this periodical while under his supervision. We wish him, in his retirement and devotion to "other imperative duties," a full realization of his most ardent wishes. In his "card" he states, that "the present editors are extensively and favorably known as teachers and authors; and as the editorial labors will be divided, the task to them individually will be less onerous, whilst the interest of the journal will be promoted by the increased attention they will be able to bestow upon it." We cordially extend to them the welcome of our editorial hand, and sincerely hope that they will find their new duties less onerous than we wot ours to be.

SOUTHERN MEDICAL AND SURGICAL JOURNAL.—We regret to learn, that there are hanging over this valuable journal, doubts of its continuance after the present year. The cause assigned by its able editor in the January number, is the want of a sufficient patronage to pay for its publication. Prof. Eve, in the announcement from which we gather our information says, "with every effort to discharge our whole duty as editor, and after every appeal on the part of the publisher, *only three hundred subscribers have paid* for the Journal for the year 1848. This, too, with payments demanded in advance. If this be the result of the *cash* system, what would have been the result of the *credit?* The publisher, therefore, distinctly declares, he cannot continue the publication of the work at a positive pecuniary loss to himself. The editor has never asked, never expected, and has never received one cent from the subscription for his labor in conducting the Journal." Certainly, this is plain talk, and we ardently hope it may have the effect desired.

PATHOLOGY AND PRACTICAL MEDICINE.

IODINE AN ANTIDOTE TO THE VENOM OF THE RATTLE-SNAKE. By JAMES WHITMIRE, M. D., (*North-Western Med. and Surg. Jour.*)—Dr. W., in the communication from which this is condensed, states that he has used the tincture of iodine in bites of the rattle-snake, viper and copper-head, on both man and beast, with complete success. His manner of using it is to paint the part that is bitten, and so far as the swelling extends, with three or four coats of tinct. (pharmaceutical strength) twice daily; and should the swelling extend, which it almost always does after the first application, if made any time soon after the infliction of the wound, it should be followed up with the paint. By the time the third application is made, the tumefaction will cease to extend, and three or four more applications will generally restore the limb, or part affected, to its natural state, save perhaps an obtuse sensibility to the touch, owing probably to the cuticle being destroyed, and some soreness of the muscles, which will remain a longer or shorter period. A successful case is related in illustration of the efficacy of this mode of treatment.

—

ANEURISM OF THE AORTA.—*Rupture within the Pericardium.* By C. L. FORD, M. D., (*Buffalo Med. Jour. for Feb.*)—The subject was a female, aged, perhaps, 50, rather fleshy, presenting nothing especially worthy of note except the following:—On removing the sternum and costal cartilages, the pericardium was observed to be very much distended. Section through it exposed a pint or more of coagulated blood, occupying a position in front, and at the right side of the heart. On examining for its source, I found a rupture of the ascending aorta two inches from its origin. The rent was perpendicularly in the artery, nearly straight, and three-fourths of an inch in length. Proceeding upwards, I found a very large aneurism, principally of the ascending aorta, though the arch, and descending aorta, were much above their normal size. The sac was nearly filled with coagulated blood. On removing this, and moderately distending the parts, I made the following measurement;—From the commencement of the aorta, around the greatest prominence of the sac, to the origin of the arteria innominata, 7½ inches. Circumference of the sac, 9½ in. Size of aorta close to a. innominata, 5 in. Size of aorta beyond left subclavian, 5½ in. Lower portion of thoracic aorta, 3¾ in. At origin of cœliac artery, 3½ in. At bifurcation into iliacs, 2½ in. Length of arteria innominata, 2 in. Circumference at origin, 3¾ in. Circumference an inch above, 3½ in. Origin of pulmonary artery, 4 inches.

The dilatation was mostly on the right side, and front of the ascending aorta. The surface was rough, apparently covered with fibrinous deposit. The descending vena cava adhered intimately to it. The pericardium adhered to the upper part of the sac, but the lower portion, where the rupture occurred, and some distance above it, had no such adventitious aid. The thickness of the walls varied little from the normal state, though in the immediate vicinity of the laceration, the coats were obviously thinner. The heart, though large, did not appear to be particularly diseased.

—

CROUP OR LARYNGITIS MEMBRANACEA.—*Treated with Nitrate of Silver.* By DR. CLARK, (*Amer. Jour. Med. Sci.*)—Dr. Clark has reported to the Boston Society for Medical Improvement, the condensed particulars of five cases treated in this manner—three recovered and two died.

CASE I.—A boy two and a half years of age, who had been ill two or three days, and had had croupy respiration for thirty-six hours before he was seen. Cauterization was practised with some alleviation of suffering, but death ensued on the third day.

CASE II.—A girl five years of age and of scrofulous diathesis. The croupy respiration was well marked, and had been present more than twenty-four

hours. Cauterization was employed and much false membrane was expectorated at various intervals. Considerable relief was obtained in this way; but the child died on the fourth day, with symptoms of exhaustion rather than of suffocation.

Case III.—A delicate girl of three and a half years, who had sore throat with hoarseness. False membranes existed in patches on the tonsils, etc.; cauterization was employed. Croupy respiration, however, came on the next evening, but it was relieved in twelve hours, by the expectoration of small fragments of false membrane streaked with blood. The paroxysms of dyspnœa returned several times, being terminated in the same way, and the patient ultimately recovered, although the voice was not wholly restored for three weeks.

Case IV.—A child of four years. The symptoms in this case were not very severe, although quite distinct. The croupy breathing had continued without remission for twelve hours—false membranes were remarked in the throat. The treatment here was followed by gradual and speedy recovery, without the expulsion of any large amount of false membrane.

Case V.—The patient, a healthy girl of six years, was seen early in the disease, which lasted a fortnight. She had at first a sore throat and a febrile attack which disappeared the second day. The only symptom which persisted was a slight and increasing hoarseness, and patches of lymph were to be seen on the tonsils and spreading thence back toward the larynx. These increased until the whole throat was invested with a coating of the lymph and the croupy respiration had supervened. The caustic was regularly applied from the beginning, and the expectoration of the membrane began almost as soon as the breathing became much embarrassed. The paroxysms of distress and the intervals of relief followed each other in this way for nearly three days, when the respiration slowly assumed its natural character. The voice could not be raised above a whisper for several days later.

No medicine but Dover's powder was given, and this was repeated often enough to keep the patient constantly under its influence. The caustic was of the strength of xl. grs. to ℥j. of water, and was used with the small curved probang. The expectorated membranes were exhibited.

Dr. Robertson, in the Charleston Medical Journal and Review, for January, 1849, has reported two cases successfully treated by the same method.

The first case occurred in a boy of ten years of age, of nervous-sanguine temperament, with florid complexion, to whom I was called on the morning of the 5th of November, 1848. His family were peculiarly liable to anginous affections. In fact, several of his brothers and sisters had been carried off, very suddenly, by diptheritic inflammation supervening in scarlatina. When I saw him, his cough was croupy, and respiration oppressed, with much difficulty in deglutition, and great complaint of soreness of the throat when the effort was made. On examining the throat, I found the tonsils swollen and inflamed, and exhibiting several small patches of albuminous deposit, and the entire fauces and soft palate presenting an inflamed appearance, and looking as though they had been coated with milk and water. I immediately used a solution of the crystals of nitrate of silver, 40 grs. to the ounce of water; not only applying it freely to the tonsils, fauces and epiglottis, but carrying the sponge into the cavity of the larynx itself. A violent fit of coughing ensued, followed by vomiting, by which a considerable quantity of viscid, tenacious mucus was thrown off, accompanied with shreds of concrete albumen. From the sensation complained of by the patient, I have no doubt the solution reached the vocal chords, as the sponge was thoroughly saturated with the solution. The cough and unpleasant symptoms were decidedly relieved by the application, and no injurious effects whatever followed the introduction of the caustic into the larynx. An emetic of ipecac. and sulphate of zinc was

given in the course of an hour, which brought away a large quantity of viscid mucus, with flocculi of a membranous character. The emetic was followed, in the course of the evening, with mercurials, and revulsives to the exterior of the throat. The next morning the inflammation of the tonsils and fauces had nearly subsided, the characteristic sound of the cough had disappeared and no traces of the peculiar exudation could be seen on the tonsils or fauces. The subsequent treatment consisted in stimulating gargles, and confinement to the bed and a comfortable room for a few days. I forgot to mention that on the first day, the attack was accompanied with considerable fever, which gave way, readily, under the treatment adopted after the application of the caustic.

The second case occurred in a girl, of delicate constitution, about eleven years of age, on the 14th of November, 1848. She had been laboring under considerable fever for forty-eight hours before I saw her. The tonsils were very much inflamed and swollen, with several patches of concrete exudation. The fauces did not present the milky appearance as in the first case, and, although there was no croupy cough, yet the voice and hoarseness showed that the inflammation extended into the larynx. I applied the solution of the crystals of nitrate of silver, of the same strength, and in the same manner as in the preceding case. When the sponge was withdrawn from the larynx, I found it completely encircled by a large portion of tough, tenacious mucus, elastic and about the consistence of jelly. All the unpleasant symptoms, as in the first case, were relieved; and, although the febrile symptoms continued longer, the treatment was the same, with the like fortunate result.

—

A New Treatment of Catarrh. By J. A. Lockwood, M. D., U. S. Navy.—(*Amer. Jour. Med. Sci.*)—For nearly a year I have pursued a plan of treatment in catarrh, which, in numerous instances, unfailingly relieved its initial symptoms almost immediately. It is adapted to its earliest stages, when the mucous lining of the nasal cavities is dry, tumid and red, accompanied with a feeling of heat, fulness, and itching of the part.

The remedy consists in the application of a solution of nitrate of silver to the Schneiderian membrane. It is best applied with a camel's hair pencil. The strength of the solution should not be less than eight grains of the salt to one ounce of the distilled water. I ordinarily employ a solution somewhat stronger —ten grains to the ounce.

The application is not painful, nor even disagreeable. Its immediate effect is to excite a copious serous effusion, which continues for some minutes. After this the nostrils are freed from the previous impediment to the passage of the breath through them, when the sensation of relief becomes at once manifest. With the subsidence of the local swelling, the general heaviness and *malaise* disappear. For some minutes, the inhalation of cold air communicates to the mucous lining of the nose a feeling of rawness. This, however, is of short duration, after which, unless the inflammation has extended beyond the Schneiderian membrane, the cure is complete.

To accomplish a radical cure, the solution should be applied at the very commencement of the attack. When the inflammation has extended to the pharynx, etc., it is no longer practicable to subject all the parts affected to a treatment which is mainly local. I have, however, applied the remedy in many cases where the disease had made several days' progress. Then, although no expectations were entertained of removing any symptoms of bronchial irritation which might have supervened, the relief to the head was always satisfactory, by the liberty it afforded to the passage of air through the nostrils.

M. Deschamps, in the *Gazette des Hôpitaux* for October, 1847, recommends snuffing up the nostrils every two hours a solution of opium in water, as an effectual cure for coryza. This method I have not tried. Before reading an account of it, I had for several months employed the solution of nitrate of silver with such happy results, that I was indisposed to seek for any better

plan. The insufflation of ardent spirits will often check an incipient catarrh, but the remedy is unpleasant and painful.

—

Treatment of Cholera. By Prof. Harrison.—The following is taken from the Western Lancet, for February, being a portion of a clinical lecture on this disease.

Treatment in the Precursive Stage.

First.—Employ the following tonic mixture, three times a day, in tea-spoonful doses, mixed with a wine-glass of cold water:—℞. Sulph. quinine, ℈ij., ether sulphuric, ℥ss., spts. camphor, ℥iss.—Mix.

Second.—Carefully watch the state of the stomach and bowels. If sickness of the stomach comes on, and especially of looseness of the bowels, then no time is to be lost in applying for medical advice. But if there be no opportunity of immediately consulting a judicious physician, and the diarrhœa be slight, the following prescription may be usefully taken—and this, with a strict regulation of the diet, and avoidance of fatigue, will prove available for an arrest of this symptom of the precursory period of the complaint. ℞. Tinct. opii., 3ij., ess. ppt., 3j., ess. cinnamon, 3j., chloroform, ℈ij., syrup tolu., ℥ij.—A tea-spoonful every two hours till the diarrhœa is checked. Or six or eight drops of laudanum with thirty drops of the spts. of camphor, in a little water, will perhaps answer. Should the diarrhœa prove obstinate, and especially should there be an absence of bile in the evacuations, then the formula given below is to be used.

Treatment in the Invasive Stage, or when the Premonitory Symptoms are Present.

First.—Nausea, or vomiting; or diarrhœa, particularly of a thin rice-water material, or cramps, denote, when either, and especially when more than one is experienced, that the cholerine, or commencement of the cholera, is upon the patient. *Second.*—If plethora exists, blood-letting has proved eminently serviceable. *Third.*—Take of the following pills every two hours till the diarrhœa is checked. ℞. Sugar of lead, ℈j., opium, gr. vi., cayenne pepper, ℈j., camphor, ℈ss., calomel, ℈j.—Mix. Divide into six pills. *Fourth.*—If the patient has lately partaken of any article of diet, then give a table-spoonful of powdered mustard and the same quantity of common salt, in a tumbler of warm water. *Fifth.*—Apply a large warm mush poultice all over the abdomen, and spread over the poultice, before its application, a thick layer of strong powdered mustard. *Sixth.*—If the patient grow worse, then employ the following:—℞. G. camphor, ℥j., cayenne pepper, ℥ss., pow. mustard, ℥j., spts. turpentine, ℥vj.—Mix. To be rubbed over the entire surface of the body. And the following:—℞. Ether sulphuric, ℥j., spts. camphor, ℥ij., spts. ammonia, ℥ss., brandy, ℥xij.—Mix. A table-spoonful, with an equal quantity of cold water every hour. This last mixture is to be used after symptoms of collapse set in, and, in conjunction with its exhibition, strong mercurial ointment mixed with camphor and cayenne pepper, are to be applied to the surface. Additional to these means, injections of ten grains of sugar of lead, dissolved in an ounce of starch or gum water, with a tea-spoonful of laudanum, should be administered every half hour.

Both the warm and cold bath have been employed in the collapsed stage. The sense of internal heat, transferred by morbid sympathy to the general surface, although the skin is greatly reduced in its natural temperature, urges the patient to throw off the bed-clothes, and to resist hot applications. The warm bath does not allay, but rather exacerbates this distress of the patient. Cold water applied in the way of affusion, has, at times, seemed to awaken reaction, by the sudden impulse which it imparts to the nervous system. The cold water is, when employed, to be dashed forcibly on the body, and immediately stimulating frictions are to be vigorously prosecuted. The few cases of re-

covery which I have witnessed, after a collapse has occurred, have been brought about by the establishment of the rapid mercurialization of the patient. And for the management of the low form of inflammation, which is so apt to succeed a severe attack of cholera, and which may be localized in the digestive tubes, or lungs, or brain, a carefully-conducted mercurial impression is the surest resource.

—

Case of Hydrophobia Treated by Chloroform. By A. H. Brown, M. D.—(*Bost. Med. and Sur. Jour.*)—The patient, aged 18, was bitten by a dog on the 29th of July, 1848. The wound, which was considerable, was simply dressed by a physician soon after it was inflicted; neither excision of the part nor the application of the caustic were resorted to, and reunion rapidly took place. On the 5th of November following, the premonitory symptoms of the disease set in; these continued to increase, and on the third day the disease, with all its frightful accompaniments, was fully developed. On the evening of this day, chloroform was resorted to—the patient was easily brought under its influence, and so kept for the *entire night.* There was no return of the spasms, and nothing to indicate that a subtle and fatal poison was doing its terrible work. The following morning the supply of chloroform became exhausted, the patient soon became conscious. From this time the spasms returned, became frequent, and violent. In the course of the forenoon, a new supply of cloroform having been obtained, various ineffectual attempts were made to administer it, owing to the spasms excited by the cold which it produced from evaporation. At this time the cicatrix of the wound appeared inflamed. The following evening the patient was again brought under the influence of the chloroform, which was kept up for half an hour, and then gradually discontinued. There was no return of the spasms, and only slight efforts to move; his breathing and respiration resembled that of an apoplectic person. Towards the last, the discharges from the mouth became bloody. The whole amount of saliva and mucus discharged was estimated at eight or ten ounces. He continued in the state described till about 8 o'clock in the evening, when he quietly expired, 28 hours after the appearance of the first spasm, and 102 days after the wound was inflicted by the dog.

Post-mortem Examination.—The brain exhibited appearances of active congestion; the vessels of the membranes were crowded with blood, and as the substance of the brain itself was sliced off, numerous bleeding points quickly appeared; the spinal cord seemed to be healthy. The mucous membranes of the fauces, larynx, trachea, and bronchia, were intensely inflamed. It appeared as though a brush dipped in red paint had been drawn over the whole surface. Notwithstanding the abundant secretion of mucus and saliva, the parts, at the time of the examination, were quite dry. The epiglottis was considerably tumefied. No other abnormal appearances were observed.

—

Discussion on Anæsthetic Agents.—The following interesting discussion which occurred in the stated meeting of the College of Physicians of Philadelphia, for January 2d, 1849, we extract from the "Summary of the Transactions."

Case of Supposed Hydrophobia.—Dr. Gibbons remarked, that a case of supposed hydrophobia occurring in a lady residing in Camden, N. J., and reported to have been cured by the use of chloroform, under the care of Professor Jackson, had been the subject of discussion at a recent meeting of the College;—as that gentleman was now present it would be interesting to the Fellows to hear from him an account of the case; which in every point of view must be considered as a most important one.

Professor Jackson replied, that it was his intention to present, at an early period, a history of the case referred to. He had always considered true rabies canina as an incurable disease, and he is not prepared to assert, positively, that the case in question was one of genuine rabies; there were many important features of that disease absent, and there is even no certainty that the dog, by which the patient was bitten, was mad. The lady had suffered, previously to her late attack, from severe nervous paroxysms, but one of these, however, had occurred since her marriage, seven years ago, and this took place four years since. He would describe the patient as physically but not mentally nervous. He would not enter now into further details, but when he presented to the College the history of the case, he would submit the reasons which incline him to believe it to have been one of rabies.

—

Cure of Extraordinary Nervous Disease.—Dr. Bond related the particulars of an extraordinary nervous disease occurring in a female, which has been under his observation for the last eight years. The patient is unable to turn in bed herself, or to be turned by another, without an attack of convulsions being induced. These attacks are also produced by pressure upon the spine, even by drawing her clothes too tighly around her. About one year ago she was seized with a severe convulsive paroxysm, attended with intense pain, in consequence of which she had not slept for two nights. Dr. B. being sent for, directed her to inhale thirty drops of chloroform, which produced very prompt relief; the inhalation was then repeated with forty drops of the chloroform, when the patient became perfectly calm, her pulse being regular; and she remained so for about an hour. That night she passed, with what, in her case, might be termed very great comfort. Since that period the patient has used the chloroform daily; at first twice, and now three times in the twenty-four hours. She is still liable to convulsions when her position is changed, or pressure is made along the spine, even when under the influence of the chloroform, unless this is given in pretty strong doses. From her being forced to lie constantly upon one side, extensive excoriation of the hip has been produced. The use of the remedy is followed by some distress about the head, which continues for about one and a half or two hours; no other inconvenience has resulted from it. She now takes two ounces of the chloroform in three weeks.

Dr. Jackson, who saw this case, remarked, that he never witnessed more perfect tranquillity in any one, than was evinced by the patient whilst under the influence of the chloroform. When not under its influence she could not be moved, or changed, nor use the bed-pan without a paroxysm of convulsions being produced. Although the remedy exhibited no power to remove the cause upon which the convulsive paroxysms depend, still by suspending these while the patient is moved, it affords to her an amount of comfort which no other agent seems adapted to give.

—

Case of Stricture of the Rectum.—*Remarkable Quantity of Chloroform used.*—Professor Jackson referred to the history of a case remarkable for the quantity of chloroform that was used. A lady laboring under a stricture of the upper portion of the rectum which prevented the flatus from passing, became, in consequence, the subject of an enormous distension of the abdomen, attended with so great a degree of sensitiveness that the use of palpation and

percussion were entirely precluded, and her case was at first involved in no little obscurity.

In the latter part of the month of December, 1845, she was attacked by a violent convulsive paroxysm, preceded py a very peculiar spasmodic effection, consisting in a cracking of the head of the humerus in the glenoid cavity and of the femur in the acetabulum; these spasmodic symptoms continued for about fifteen minutes, when general convulsions set in, accompanied with intense pain. On the first of January, 1846, an attack of spasms occurred and continued for several hours; the urine was retained from a spasmodic affection of the neck of the bladder and urethra, the orifice of which latter was so much retracted that it was difficult to introduce a catheter to relieve the distension of the bladder. A few drops of chloroform were given to the patient to inhale, and prompt relief was experienced. The use of the chloroform was continued daily for two or three weeks, the quantity being gradually increased as the effects diminished. Dr. J. was sent for one morning and found the mother of the lady in great alarm in consequence of the quantity of the chloroform which her daughter had taken. She had inhaled two ounces in the course of the evening, then two ounces more, and an additional ounce in the course of the night; being five ounces inhaled from 5 o'clock, P. M. until 10 o'clock of the ensuing morning. Dr. J. found her with a feeble pulse, diminished temperature of the body, and considerable excitement of mind. She insisted upon having more of the ether to inhale. She remained cold and nearly pulseless for forty-eight hours, when all the effects of the inhalation disappeared, and, what is remarkable, since that time, she has had no return of her spasms. Upon one occasion having a tooth taken out, the pain of the operation caused a tendency to their return, but this went off without the spasms occurring.

—

Case of Trismus Nascentium.—Dr. Bond related a case of trismus nascentium which occurred in the infant of a female who had been delivered after an easy labor without any medical attendant. When Dr. B. was called to the infant, it was a week old, and exhibited the symptoms of trismus well marked. He administered a mixture of chloroform and asafœtida internally, and the child recovered. How far this result was to be attributed to the chloroform, Dr. B. is not prepared to say, inasmuch as other remedies were employed at the same time. The bowels of the infant were much disordered and so soon as they were restored by an appropriate treatment to a healthy condition, the trismus began to disappear.

—

Case of Neuralgia.—*Local Anæsthesia.*—Dr. Hays stated, that he had employed the chloroform to produce local anæsthesia with apparently the most happy effects, in a case of neuralgia, occurring in a gentleman fifty years of age, who had been for a long time a sufferer from neuralgia of the foot, in which all the remedies that had been previously employed failed to produce relief. Dr. H. was called to this patient about eight days since, and found him in intense pain, which had deprived him of sleep the whole of the preceding night. Dr. H. directed the affected parts to be enveloped with a pledget of lint or a few folds of muslin wet with chloroform, and the whole to be covered with a portion of oiled silk to prevent evaporation; on the next morning he found him entirely free from pain, which has not since returned. Whether the relief experienced in this case is to be ascribed to the local anæsthesia produced by the chloroform, or is to be considered as a mere coincidence, Dr. H. does not pretend to decide.

—

Good Effects of Anæsthesia in Labor.—Dr. Parrish stated that a case of labor in which chloroform was used, had been communicated to him by his brother, Dr. Joseph Parrish, of Burlington, N. J. He was called a few days

since to attend a case of protracted labor from rigidity of the os uteri, attended with severe ineffectual pains; he employed a mixture of ether and chloroform; almost immediately the parts became relaxed, and the labor proceeded with increased activity. The child was soon born and without any consciousness on the part of the mother. Dr. Griscom remarked, that he had employed ether inhalation, as remarked in the report read by him this evening, in two cases of labor. The first was a protracted, instrumental case; the female had been in labor twenty-four hours. There was great rigidity of the parts and dryness of the vagina. The patient was very intolerant of pain. As soon as she commenced inhaling the ether she pronounced herself as in heaven. There quickly took place a copious secretion of the vaginal mucus, and the child was soon delivered. The other case was one of natural labor, but attended with severe pains. The ether was administered at the patient's desire. She did not inhale a sufficient quantity to produce unconsciousness, but acknowledged very decided relief from its use. Dr. Hays called the attention of the Fellows to the very excellent paper of Dr. Burwell, on the use anæsthetic agents in labor, which appeared in a late number of the Buffalo Journal. The authority of this gentleman, he remarked, was very high, and his statements may be fully relied on. In some of the fifteen cases related by him, a state of unconsciousness was produced, while in others the consciousness of the patient was unimpaired, and yet the mitigation of the sufferings incident upon the labor was very decided. Dr. B. directs a plan for the administration of the anæsthetic agents, by which their effects may be graduated so as to obtain a mitigation of pain without inducing a state of unconsciousness. Dr. Page believed that there was great uncertainty as to the quantity of the ether or chloroform inhaled in any given case, and an impossibility of graduating the dose. A considerable portion of the ether escapes and becomes mixed with the air of the room; to such an extent sometimes as to affect those who breathe it; much also remains in the sponge which can never be entirely exhausted of the ether placed upon it. He has seen the mixture of ether and chloroform given in a case of labor attended with great rigidity of the parts, and severe pain, with the almost immediate effect of increasing the vaginal secretion, and relaxing the os uteri; allowing labor to go on while it caused a cessation of the pain. It is known that the inhalation of ether and chloroform increases the secretion from all the mucous surfaces; causing an increased discharge of saliva, of the mucus of the Schneiderian membrane, of the bronchial mucus, &c.; in consequence of which latter circumstance, its use is precluded in many operations in which sneezing or coughing would be highly embarrassing.

—

Nephritic Colic.—*Chloroform Beneficial.*—Dr. Stillé stated, that last spring, Dr. Bowditch, of Boston, related to him a case of nephritic colic, occurring in an individual who had previously suffered from several attacks, in which the chloroform had been administered with the effect of inducing entire relief of the pain, without abolishing consciousness. The influence of the chloroform was kept up for several hours, when, at length, the stone passed through the ureter. Within the last three weeks a lady, about twenty years of age, after retiring to bed some hours, was attacked with violent pain in the region of the right kidney. About an hour afterwards (one o'clock, A. M.) Dr. Stillé was sent for. The mother had applied warm fomentations to the loins, and immersed the feet in a mustard bath. There was still intense pain, with tenderness over the region of the right kidney. The patient was lying bent double, her hands and feet were cold, her pulse feeble, and about sixty in a minute. The pain extended in the direction of the ureter; there was pain and a twitching motion of the right thigh, with frequent inclinations to urinate. From a review of the symptoms, Dr. S. considered the case to be one of nephritic cholic. The use of ether was suggested. A tea-spoonful was poured

upon a handkerchief and inhaled for five minutes, when the patient fell asleep. In about fifteen minutes she was aroused by a return of the pain. The ether was again inhaled, and its impression was kept up for about an hour, without carrying it so far as to abolish consciousness; the pain ceased, the extremities became warm, and the pulse rose to seventy-five. The next morning there was no pain complained of, but considerable soreness was experienced when pressure was made over the right kidney. The pain did not return until two nights afterwards; when a larger dose of the ether was used, by the patient, without Dr. Stillé's presence or direction, but from some cause, it did not produce the same alleviation of the pain as before. At four o'clock in the morning Dr. S. saw her. The pain had by this time somewhat abated, and upon the administration of an opiate enema complete relief was procured. The pain has not since returned. No calculus was passed, so far at least, as could be ascertained.

—

Analogy between the Effects of Ether Inhalation and Opium.—Dr. Gibbons believed that we had overlooked the very great analogy there was between the effects of ether inhalations and opium. They both cause a cessation of pain without diminishing the expulsive action of the uterus, and this without necessarily inducing an abolition of consciousness. In abortions, when opium is exhibited, the fœtus is expelled without the patient experiencing a sensation of pain. From the favorable effects of opium in labors at the full term, he would infer the good effects of ether and chloroform. Given after delivery, the effects of opium is to render the recovery more favorable. To a combination of opium and camphor given at the termination of labors, he would almost ascribe the power of preventing the occurrence of puerperal fever. He has certainly never seen that disease occur in cases where he has given the combination referred to in a full dose. Dr. Jackson dissented from the suggestion of Dr. Gibbons, that large doses of opium and camphor are useful either during or after an ordinary case of labor. If the system of the parturient female is brought fully under the influence of opium, there would unquestionably be some danger that the speedy and complete contraction of the uterus would not take place, and consequently endanger the occurrence of flooding.

SURGERY.

On the Employment of a New Agent (Gutta Percha) in the Treatment of Strictures of the Urethra.—By H. J. Bigelow, M. D.—(*Bost. Med. and Sur. Jour. for Feb.* 7.)—The advantages of gutta percha are, first, that it is probably the only material in the world capable of receiving an acute impression at a temperature quite comfortable to the skin, and at the same time of retaining it entirely, at about the actual temperature of the body; then becoming hard and resisting, besides being exceedingly tough, even in attenuated filaments. It follows, that upon being withdrawn from the urethra, it presents a perfect impression of the most minute inequalities of the callus against which it has impinged. In the second place, it may be used when thus moulded as a dilator of the stricture; and it can be made to enter with unerring certainty any of its orifices.

A few words will suffice to describe the method I have adopted in employing these bougies. A medium size answers a good purpose, unless there be strictures anterior to the one to be treated, in which case a small calibre is sometimes requisite. Let the bougie be oiled and the tip passed to and fro rapidly in the edge of the flame of a candle, until it is so warm that the nail will indent it; the mass will remain plastic after the surface has ceased to be

hot, and may be rapidly passed down to the stricture, being very smooth and pliable. If it be pressed against the stricture for a minute with a force equivalent to an ounce or two of weight, and then left to cool during the succeeding three or four minutes, it will present, when slowly and carefully disengaged from the stricture, a firm and unyielding impression of the most minute inequality and indentations of the callous surface. The tip may be cut off and preserved, furnishing, with others, a complete history of the conformation of the stricture under treatment. If water be employed to heat the gum, it will be found that the steam from the surface will soften the rod for the length of an inch or more; rendering it liable to curl up against the stricture, as small elastic bougies are apt to do. The tip alone should be softened. On the other hand, care should be taken not to burn the gum; its texture and ability to harden are thus destroyed, and a piece may be left in the stricture. Such a case occurred to me. A plug was thus left in a small stricture, causing retention of urine during eighteen hours; when the orifice having become dilated, the plug was forced out by the urine; which then flowed more freely than for many months before.

Pure gutta percha softens most readily and cools with least elasticity and shrinking. It is therefore far better for impressions than when adulterated, as is common, with caoutchouc. But when pure, a little oiling and use soon raises a fur upon its surface; so that it is probable that some compound will answer better for mere bougies. I have hitherto made these rods from pure gum, of the thickness of sole leather, cut into square strips, plunged into boiling water, and rolled between two boards, care being taken to prevent twisting.

—

Mammary Cancer.—*Ulceration—Excision—Death.*—Dr. J. N. Batchelor, in the New-Orleans Medical and Surgical Journal for November, 1848, reports the particulars of a case of which the following is an abstract. There are points of *exceeding interest* in it. The patient, a Mrs. Low, received a blow on the right breast from the windlass of a well while drawing water. Five months after she discovered a tumor about the size of a hazle-nut, three-quarters of an inch to the right of the right nipple. She consulted a conjuror and for twenty weeks was under his care, at the end of this time the tumor involved the whole gland; it "extended from the lower portion of the gland to the coracoid process, and from the cartilages of the ribs to the axilla. It was 27 inches in circumference, rising upwards and outwards, forming an immense mass, larger than a child's head, with a slough upon the superior portion of some four or five inches in diameter with an irregular margin and near two inches in depth and very offensive. Her nervous system seemed much affected and she had had a good deal of hemorrhage from the sloughed portion which had materially weakened her. She complained of slight chills followed by fever at night, after which profuse perspiration came on. She suffered much pain in the tumor. A palliative treatment was instituted until the necessary apparatus could be obtained for the exhibition of "letheon." On examination, five days after, one half of the tumor had sloughed off, accompanied with considerable hemorrhage. She is now blanched and weak, pulse 170 and small, there is no enlargment of the glands perceptible through the system. "*She has a slight cough.*" She and her friends are anxious that an operation for its removal should be performed. During the inhalation of the ether and particularly when under its complete influence the pulse "increased almost

beyond counting," "Owing to the diseased state of the integuments so large a portion was removed that the flaps could not be brought together by an inch and a half." After the operation she appeared a good deal exhausted, pulse 105, very small, skin blanched and covered with a clammy perspiration. "*Four ounces of ether were used during the operation,*" and four hours after the operation the pulse was 165. When the wound had nearly closed the disease made its appearance "near the edge of the wound under the upper edge of the sternum and over the left clavicle in small subcutaneous tumors." She had recovered strength and flesh a little "*but still looked badly.*" As soon as the wound closed "tumors made their appearance all over the upper portion of her body," and at her decease, which occurred a few weeks after the operation, the largest was in the left axilla and was near the "size of a child's head." There were in all near *forty* tumors to be seen. No post-mortem examination was made. [Surely this is conservative surgery with a vengeance.—Ed. *N. Y. Jour. Med.*]

—

Ligature of the Left Subclavian Artery for Subclavian Aneurism. —*Remarkable Deviation of the Vessels and Consequent Change of Relations.*— By J. Mason Warren, M. D.—(*Amer. Journ. Med. Sci.*)—This case presents several points of interest which deserve to be remembered, viz.: 1st. The fact that it is the first case which has proved successful where a ligature has been applied to the artery for an aneurismal tumor situated above the clavicle. All the aneurismal tumors operated for in this situation, have required the application of the ligature within the scaleni, and their terminations have in every instance been fatal. 2d. The anatomical peculiarities in the relations of the vessel, to which may be attributed the possibility of the ligature on the outside of the scaleni. 3d. The rapidity with which the collateral circulation was restored, the pulse having been felt at the wrist twenty-four hours after the operation. 4th. The length of time the ligature remained attached, *ninety days*, notwithstanding all safe means were made use of to detach it.

The following are the particulars of the case somewhat condensed:

Four months previous, while in attendance on a sick brother, she had occasion to draw the cork from a bottle, and felt at the moment a sudden crack at the point where the present tumor is situated. A short time afterwards a small swelling, having a decided pulsation, was distinguished at that spot, which has gone on increasing until it has attained its present size. It had a powerful pulsation, and possessed the usual thrill characteristic of an aneurismal affection.

After having examined the tumor and learned its history, I endeavored to discover the subclavian artery in its normal situation beneath the clavicle, at the point where it passes over the first rib. To my surprise no large vessel or any osseous protuberance answering to the tubercle of the first rib, usually taken as the guide to the artery in this position, could be found. Different parts of the neck were then explored, which finally led to the discovery of a large artery passing obliquely upwards, parallel to, and about an inch removed from, the external border of the trapezius muscle. Compression being made at this point, the pulsations of the tumor ceased, as well as the pulse at the wrist. There was no question, therefore, in my mind, that this was the subclavian artery, but it was more difficult to determine this remarkable anomaly.

I now sought for the first rib, and to my surprise discovered both the first and a part of the second rib passing obliquely across the neck above the clavicle. The insertion of the scalenus anticus muscle into the first rib, was at length distinguished; the tubercle, however, was not sufficiently developed to be manifest to the touch. The whole osseous system of the chest in this case seemed to have undergone a partial displacement. The spine and ribs attached had been, as it were, moved upwards; while the sternum was carried in an opposite direction.

Making a strong compression on the vessel above the tumor, the arm became extremely painful with a sensation of numbness, and on a subsequent and more careful examination the whole brachial plexus of nerves could be discriminated, in immediate contact with the artery.

An incision, about two inches long, was made, extending from near the outer and upper edge of the sterno-mastoid muscle downwards, in the direction of the scapulo-clavicular articulation, and an inch from the edge of the trapezius muscle, the pulsations of the vessel being the principal guide, as the other anatomical marks were wanting. This incision divided the skin and superficial fascia; a second cut opened one of the branches of an artery given off from the thyroid axis, which was tied. A nervous band of some size was encountered, and at its side and directly over the artery a large vein, apparently the external jugular. The vein was carried to the upper part of the wound with a silver hook, and the nerve to the lower; the dragging upon the latter caused a disagreeable and somewhat painful sensation in the arm.

The sheath of the vessel was next opened, the cellular membrane around it cleared away, and the aneurism needle, unarmed, passed from below upwards, on account of the difficulty of introducing it in the contrary direction from the interference of the scalenus anticus, which had its insertion just below. The needle at once encountered and raised the lower nerve of the brachial plexus, which was in the most intimate contact with the artery. By depressing the handle, and urging the point forwards, with careful manipulation the eye of the needle was without difficulty brought out between these two organs. The instrument was now threaded with the ligature and withdrawn. Careful exploration being made to ascertain if any nerve was included in the ligature, the painful sensations in the arm caused by drawing the ligature downwards at first led to the supposition that this might be the case. But when the same traction was made directly upwards, no pain was felt; the former sensations being produced by the dragging on the cervical portion of the brachial plexus, owing to their connection with the vessel.

The ligature was now tied, and the wound dressed. The pulsations in the aneurismal sac, as well as those of the radial artery at the wrist, at once ceased, and all appearance of the tumor vanished. The patient's arm and hand were a little cold directly after the operation, but being rolled in flannel they soon regained their natural temperature.

26*th*.—The patient states, that the pulse at the left wrist returned for a time last evening, it then disappeared, but returned again, though faintly, this morning. I could not discover it at the time of my visit.

27*th*.—She has been somewhat troubled by occasional pains in the arm. The pulse was felt yesterday once or twice by Dr. Buckminster Brown, being intermittent. The wound has healed by the first intention.

29*th*.—The pulse was perceived though feebly, at the wrist, but could not be detected in the axilla. The spot formerly occupied by the aneurismal tumor, now presents an obvious depression.

Jan. 2*d*, 1848.—the pulse is constant at the wrist.

14*th*.—The ligature still remains on the artery, notwithstanding the traction daily made by the patient in accordance with my directions. A number of large vessels, taking their origin from the subclavian, exist in different parts of the neck. One of these, apparently the supra-scapular, passes directly over

the sac, and pulsates so strongly as at first to convey the impression of a return of pulsation in the aneurismal tumor.

March 30th.—Once or twice in the course of the last two or three weeks, finding that the ligature on the vessel was not disposed to become detached, I have seized it with the forceps, and, holding the artery forcibly down on the rib, have twisted the thread with considerable force. This was done for the third time yesterday, and immediately afterwards the ligature separated, *ninety-six* days after the operation.

The wound almost at once closed.

—

Ligature of the Internal Iliac Artery, for a Traumatic Aneurism of the Gluteal.—*Peritonitis—Death.* By H. J. Bigelow, M. D., (*Amer. Jour. of Med. Sci.*)—A middle-aged Irish woman was stabbed in the right buttock by her husband, on the evening of the 4th of July last. By the evidence of the physician, who was called, a very large quantity of blood was lost. But the bleeding ceased under compression, and the woman was enabled to resume her usual occupations. Three or four weeks subsequently there appeared a numbness and weakness of the extremity of the wounded side, and soon after a small tumor was observed in the situation of the cicatrix of the wound. On her entrance into the hospital in September, there was a tumor over the upper part of the ischiatic notch, about the size of a lady-apple, with an unequivocal though not strong pulsation, and a very marked souffle. The tumor extended into the pelvis, and could be felt both per vaginam and per rectum. No doubt could be entertained of the character of the tumor. Taking into view the fact that the wound of the artery must necessarily have been directly at the ischiatic notch, rendering the possibility of discerning it there a matter of great doubt, it was decided to tie the internal iliac. During her residence at the hospital, and previous to the operation, the numbness of the right lower extremity increased, and several large bullæ like those of pemphigus appeared on the same limb. The operation was performed September 30th. The incision was made above and parallel to Poupart's ligament, the peritoneum raised from the iliac fossa; and the artery readily attained. After the application of the ligature the aneurismal symptoms ceased. The patient continued comfortable for two days; when symptoms of peritoneal inflammation commenced, and she died the eighth day after the operation. At the autopsy a considerable quantity of lymph was found in the peritoneal cavity; but adhesion had taken place in the course of the wound. The right os innominatum, which was exhibited with the parts attached, showed, 1st. The ligature around the internal iliac artery just above its division, and a satisfactory clot formed between this spot and the division of the common iliac. 2dly. The wound of the gluteal artery immediately at its emergence from the notch, and the aneurism composed of two portions, one about the size of a pigeon's egg, formed in the cellular tissue; and the other in the substance of the pyriformis muscle, which latter was the portion felt during life on the inside of the pelvis. In both, the blood was firmly coagulated. The sciatic nerve was compressed and flattened on the spine of the ischium.

—

Case of Traumatic Tetanus Successfully Treated. By S. C. Thornton, M. D., (*New-Jersey Med. Rep.*)—The subject of this case was a robust man twenty-four years of age, in whom the disease was induced by an injury on the foot caused by wearing a tight boot. Dr. T. immediately bled him to the extent of twenty ounces, and directed hyd. chlorid. mitis, gr. x., every two hours, and morph. sulph. gr. $\frac{1}{2}$, every three hours, to be continued till my next visit. It the evening Dr. T. saw him again, and directed the spine rubbed with pure potash, and to be covered with a blister extending from the nape of the neck to the os-coccyx, and to continue the calomel and morphia. The agonies of the patient were now extreme, severe spasms occurring every twelve or fif-

teen minutes. To allay these, chloroform and sulphuric ether were administered and directed to be given alternately every hour during the night, in limited quantities, if circumstances should require it. The moment the patient came under the influence of the ether, he cried out "I am easy now." The paroxysms were not only moderated, but the intervals between them were much longer, so that the poor patient already experienced some relief. Nearly an hour would sometimes elapse between the paroxysms. He was ill for two weeks, during which time he would occasionally suffer from his tetanic symptoms, but good nursing and a steady perseverance in the remedies finally relieved him. The calomel was continued for the first four days; after that reliance was principally placed upon the the sudorific effects of the morphia and the anæsthetic agents which have been named. He took four hundred and ten grains of calomel, (by which he was freely purged and salivated,) twenty-five grains of morphia, consumed twenty-eight ounces of sulphuric ether and eight ounces of chloroform.

MIDWIFERY AND DISEASES OF FEMALES.

ERYTHEMATOUS STOMATITIS OF THE INFANT A CAUSE OF CRACKED OR CHAPPED NIPPLES IN THE NURSE.—By Prof. H. R. FROST.—(*Charleston Med. Jour.*)—Among the causes of cracked or chapped nipples may be mentioned the existence of erythematic stomatitis, with curd-like exudation in the infant. This affection occurs in the first months of infancy, and is by the nurses confounded with follicular stomatitis or aphthæ.

That this affection of the child is the cause of cracked nipples, the following facts will serve to illustrate. Mrs. ——— was confined —— —— after a very favorable accouchement. She nursed her child for six weeks after its birth. At this time she was sensible of an increase of heat in the mouth of the child, and from a sense of soreness felt in the nipple at the time of nursing, began to suspect that the child's mouth was in an unhealthy condition. It was examined, and nothing unusual was observed. Nursing was continued, with an increase of the symptoms, when a further examination discovered this curd-like exudation. The sores of the nipple soon became augmented into painful excoriations with fissures or cracks of the part, causing such pain and distress in nursing that very reluctantly the mother was compelled to give the infant to be nursed by another. The nurse, Rose, was quite well at the time, but at the expiration of a week she commenced suffering in like manner. The child was then taken from her and given to a hired nurse, who becoming sick from other causes, was, after a week's nursing, compelled to return him to Rose. In the interval Rose continued to suffer with a soreness, but upon the infant being returned to her she became much worse, and *her own child* began to suffer in a similar manner: that is, to be affected with an inflammation of the mouth, accompanied with this curd-like exudation.

Oct. 26.—Rose's breast continues in a very painful state—nursing occasioning a great deal of suffering. Several remedies have been employed, and apparently with good effect, but every attempt at nursing inflicts new injury and interrupts the healing process.

The infant was now given to a healthy young woman from the country, whose child was said already to have had the thrush, without communicating any disease to the nipple. Upon nursing the child for a few days *she, too,* began to complain from the same cause. Upon examining the nipple it was evident that a chapped condition had commenced, and it was only by limiting the nursing of the child, by diligent washing with soap and water after each application of the child, and by the use of astringent remedies, that the disease was prevented extending itself.

It is thus apparent that in particular cases a diseased state of the mouth, and seemingly of a very slight character, may communicate such disease to the mother as to incapacitate her from performing a most pleasing and necessary duty to her offspring, and that the breast so affected may communicate the same disease to another infant applied to it.

The contagious character of this disease has been affirmed by some, whilst it has been denied by others. Baron and Billard deny its contagiousness, while other practitioners have known healthy infants to become attacked by sucking from the same breast with those affected with the disease.

I would not be understood as affirming that the serious consequences I have mentioned are capable of being produced in all cases—the contrary, I believe, is the fact; but cases do occur, though fortunately but rarely, in which a trifling disease may have the property of communicating a very painful affliction to the mother.

—

Puerperal Convulsions.—Dr. Channing, in his work on "Etherization in Childbirth," gives the history of three cases of puerperal convulsions, which were successfully treated by chloroform and ether. The first case occurred in his own practice; the patient aged twenty-one, was in the middle of the sixth month of pregnancy. She had much anasarca with œdematous fulness of face and neck; she had several convulsions for which she was treated homœopathically. After consciousness was abolished homœopathy was abandoned, and twenty ounces of blood taken from the arm with some relief. Dr. Channing being called in, he "found her with a pulse of one hundred and twenty, not strong or full. Comatose, incapable of being aroused, skin hot, turgid, mottled, mouth open, tongue swollen and protruded between the teeth." A *pain* soon came on and with it a violent spasm. "The spasm was short, but little exceeding a minute, but I think as violent in its whole character as I have ever witnessed." "Heavy, almost suffocating stupor now came on; and, after some time, respiration became easier." With the next pain chloroform was exhibited; "no spasm attended or followed," this was 1, P. M.; pains continued but no convulsions, until 4, P. M., when another and light attack occurred; after this the convulsions appeared to be entirely under the control of the remedy. The patient was delivered about 10, A. M., the next day, and did well. Dr. C. says, "I passed twenty-four hours with this patient, and had opportunities to observe symptoms and the effects of etherization. Inhalation was used to *prevent* convulsions. It was used for some time at the very beginning of uterine effort, and was continued until it ceased. As intervals grew longer, chloroform was less regularly used; but this was regulated entirely by the character of the pain, its length, &c. The report shows how perfectly the object of etherization was attained, convulsons were prevented, so that, with the exception of one fit, the disease did not declare itself after inhalation was begun." Dr. C. gives the details of two other cases in which chloroform, and another in which ether was used with advantage.—*Trans. of College of Phys. of Phil.*

—

Monstrous Births.—*Five occurring in the same Female.* (Communicated in a letter to Professor Dunglison.) By Dr. J. Martin.—I will cite the cases of monstrosity occurring in a lady with whom I have been well acquainted for about fourteen years. Previous to that time she gave birth to two well-formed and well-featured children. I attended her in the first case of monstrosity. At the period of my earliest acquaintance with her, she moved in the middle walks of society, and had enjoyed good health up to that time. She was well developed in figure, and gave birth to a child perfectly formed in every respect, with the exception of its head and face. The eyes were placed at the top of the forehead, and all the superior and posterior parts of the head were deficient, the corresponding bones of the cranium being want-

ing, and the opening fringed round with something very like liver. Her labor was attended with no difficulty; but the liquor amnii was very abundant, and the child was still-born. She had a speedy recovery.

In about eighteen months after this she gave birth to another child which was properly developed as to face and head, but the flexor muscles of the legs and arms were in fault; I could not straighten its legs, arms, fingers, or toes, owing to the flexors being too short. Her labor, this time, was not so easy, in consequence of the arms being flexed on the breast, and the hands below the chin; yet it was not attended with much difficulty, and the liquor amnii was again abundant.

The next two confinements were similar to the first I have detailed, in every respect, the monstrosity being the same; from both she had a speedy recovery.

At the next, (in the winter of 1843–44,) I was not present, being in attendance on the medical lectures in Philadelphia, but I understood that the labor was not accompanied with more severity than is common to woman; the child was defective on the top of the head, and the liver-like growth was there as in the other cases.

In 1846 she was confined again, and I was summoned to watch over her difficulties during her labor. She was in great hope that she would have a perfect child, being led to this conclusion by the strong movements of the child *in utero*. During the labor the os tincæ dilated rather reluctantly; but when dilatation did occur and the membranes were ruptured, a great discharge of liquor amnii took place, and I was enabled to discover that the head was defective while it was still at the superior strait. The deficiency was the same as in the other instances, but it was born alive and lived about three hours, and moved and made considerable muscular exertion. There was hemorrhage from the liver-like production on the top of the head. This child assumed a cerulean hue, becoming more livid from the moment of its birth till its death. The lady recovered rapidly.

The last misfortune was in 1847, when she had a miscarriage; the embryo was about two inches in length, and the defect at the top of the head could be very readily discovered.

Here, then, are five cases of mature labor, the products of which were all defective at the top of the cranium. One carried to the full term and defective in the flexor muscles, and one abortion, in which the embryo exhibited the same defect at the upper portion of the cranium, and all occurring in the same female apparently in the enjoyment of perfect health.—*Med. Exam.*

—

Puerperal Peritonitis and Hysteritis—Succeeded by Phlegmasiæ Dolens.—By D. B. Trimble, M. D.—(*New-Jersey Med. Rep.*)—Mrs. A., aged about 28 years, of a leuco-phlegmatic habit, was delivered of twins, after a tedious labor, on the 15th of July. I had been called to see her three times within the preceding month: the first time, on account of severe cephalalgia, of an intermittent character, accompanied with some uneasiness in the loins. Her pulse being pretty full, I took about 12 ounces of blood from the arm, and in about an hour after the pains in the head ceased, and became regular in the back. After remaining a considerable time, and finding the os uteri undilated, I administered an opiate and left her. The pains in the loins gradually abated, and next morning she appeared entirely relieved. Twice after this, at intervals of a week or ten days, she sent for me, when the uterine contractions were so strong and regular as to induce me to think that labor had commenced, the os uteri being slightly dilated. On the 15th of July she was delivered of two boys, and though the labor was tedious, there was no difficulty in removing the secundines, and she appeared to be doing well up to the 20th, when she was taken with severe pain in the uterine and abdominal region, and when I saw her (about 12 o'clock, M.) I found her suffering severe pain, particularly

in moving, or on pressure in the abdomen, which was considerably tumefied. The lochia was entirely suppressed, and the secretion of milk diminished; retention of urine, and the pulse fuller and more accelerated than usual. I bled her freely, administered a full dose of ol. ricini, and had warm stimulating fomentations applied to the abdomen. At 6 o'clock, I called again; the swelling of the abdomen had greatly increased, together with the tenderness; there was considerable dyspnœa; the pulse was soft and small, but frequent. She was reclining, with her shoulders elevated, her knees drawn towards the body, so as to relieve the tension of the abdominal muscles; she was larger than before her delivery; and her countenance was expressive of great anxiety and suffering. The castor oil had had a moderate effect, and I then prescribed the following—℞. Pro. chl. hydrarg., gr. xij.; pulv. opii, gr. iv. Div. in pulv. No. iv.—one to be taken every two hours. I also directed 40 leeches to be applied to the abdomen below the umbilicus- 21st. Found her rather more comfortable, though still oppressed in her respiration; abdominal tumefaction slightly abated, though the tenderness continued unmitigated. Pulse moderately tense, and frequent; continued the calomel and opium; applied a large epispastic over the abdomen. Six o'clock, P. M. Free alvine evacuations of dark bilious fæces, affording some relief to the pain. Considerable moisture on the skin; swelling somewhat decreased, pain less acute, dyspnœa partially alleviated. Directed ol. ricini, 1 oz.; ol. terebinth., 1 dr., to be given at a draught. 22d. Symptoms improving, but the pulse being full, more tense and frequent, I ventured upon abstracting more blood, and took about ten ounces from the arm. Prescribed calomel and opium in the proportion of one grain of each, every three hours. Had thin emollient poultices applied over the whole abdomen, which appeared to give considerable temporary relief. About an hour after this bleeding she became very much prostrated, and I was compelled to give her stimulants, viz., wine whey and aq. ammonia. She rallied in the course of five or six hours, and was much relieved. 23d, 8 o'clock A. M. Much better; less abdominal tenderness; less difficulty of breathing; pulse softer and slower. Directed the castor oil and spts. turpentine to be repeated, which procured copious tar-like discharges. With the occasional administration of a grain of opium, a gentle purgative, light diet and cooling drinks, she was becoming rapidly convalescent, when she imprudently left her bed, and was suddenly taken with severe pain in the right groin, followed by rapid enlargement of the thigh and leg of the same side, accompanied with great suffering. There was no discoloration of the limb, and it presented a glossy appearance. By giving her supertart. potass., pulv. Doveri, the application of a blister to the thigh, and the persevering use of the camphorated oil, the swelling gradually abated, and she eventually, under the use of an unirritating, nourishing diet, and for a short time mild tonics, recovered her usual health, with the exception of the enlargement of some of the superficial veins of the leg, which continues somewhat swollen.

From the foregoing description of this case, I think it will appear evident that there was considerable uterine irritability, and a tendency towards inflammation, prior to delivery; and that the swelled leg was the consequence of the inflammation. The condition of her pulse rendered me cautious in the abstraction of blood, and somewhat doubtful whether it would not terminate as puerperal fever; and I was alarmed at the prostration produced by the second bleeding, though gratified afterwards by the great relief it afforded. This is the fifth case of combined peritonitis and hysteritis that I have had in my practice, and the same general course, viz., blood-letting, blistering, calomel and opium, has been successful with them all.

—

Death of a Fœtus in Utero by Lightning—*the mother escaping.*—Our valuable contributor to the Journal, Dr. J. A. Mayes, of Bradleyville, So. Ca., writes to us, under date Dec. 8th: "Looking over the pages of the Decem-

ber No., I noticed an account of several persons struck with lightning, the reading of which brought to my recollection the following case. A negro woman, about 30 years of age, in good health, and eight months advanced in pregnancy, was overtaken by a thunder-storm in the month of August, 1848. For protection against the rain and wind, she *leaned* against a pine tree, but had scarcely done so, before the tree was struck by lightning. The shoulders, front of the chest and abdomen, were severely burned, but the brain was, in no respect, injured. From that time, to her delivery, which was three weeks afterwards, she complained of being very unwell. The child was dead, and appearances indicated that it had been so from the time the mother received the stroke of lightning. The woman recovered rapidly. This, then, is a case of a child in utero being killed by lightning, whilst the mother escaped."—(*South Med. and Surg. Jour.*)

MISCELLANEA.

Western Journal of Medicine and Surgery.—The hearty response given to the appeal of the editors of this Journal in their last November number has decided them to continue the work. The pleasure which the knowledge of this fact affords us will, we think, only be equalled by that felt by the whole profession, more especially those who have read the spirited letters of Dr. Yandell, written whilst in Europe. By-the-by, we learn that they have been republished in book form, but as yet we have not received a copy of the work.

—

New Adhesive Mixture.—Dr. Sanborn, of Andover, Mass., has made a new adhesive preparation that is likely to prove a prominent rival to the collodion. Gutta percha is dissolved in chloroform, having about the consistency of melted glue. It is applied with a brush, and meets the decided approval of competent judges. The inventor says that he communicated the discovery of the properties of this combination to one of the Boston papers more than a year ago. The menstruum does not evaporate quite so rapidly as ether, consequently the gutta percha adhesive fluid is rather more economical than the collodion, which rapidly disappears, after removing the cork.—(*Boston Med. and Surg. Jour.*)

—

East Tennessee Medical Society.—At a meeting of this Society, held at Chattanooga, on the 23d and 24th of November last, a committee was appointed to nominate delegates to the American Medical Association, who report as follows: "*Whereas*, We duly appreciate the objects of the American Medical Association, and believe that it will have a salutary influence upon, and will tend to elevate, the medical profession; that it is calculated to disseminate information and promote a union among its members, it is therefore

"*Resolved*, That F. A. Ramsay, of Knoxville, and S. B. Bowles, of Marion, be appointed delegates from this Society to the American Medical Association, which meets at Boston in May next.

Resolved, That the ethics published in the transactions of the American Medical Association be adopted by this Society for the government of its members.

Resolved, That any member violating any part or parts of said ethics, will be amenable to presentation by any member to whose knowledge the violation may become known, and subject to degradation by expulsion."—(*Medical News.*)

GEORGIA MEDICAL CONVENTION.—The last number of the Southern Medical and Surgical Journal contains a call made by the Faculty of the Medical College of Georgia, to the physicians of the state, for a convention which was to have been held on Tuesday, the 20th ultimo, in the city of Augusta. The states of Alabama and South Carolina have already held conventions, and we heartily rejoice to learn that the state of Georgia is not willing to be behind her sister states in furthering the interests of medical science.

—

DR. B. DOWLER AND THE ACADEMY OF NATURAL SCIENCES, PHILADELPHIA.—We are gratified to learn that our *confrere* and fellow-citizen, Dr. Bennett Dowler, has received from this learned and scientific academy the honorable title of Corresponding Member. We believe he is the first physician of the South who has been thus honored; and his laborious researches into natural sciences and their kindred subjects, fully entitle him to this distinction. We congratulate Dr. D., and trust he may live to gain yet higher honors in the field of science.—(*N. Orleans Med. and Surg. Jour.*)

—

MONSTROSITY.—A most singular case of congenital deformity was presented at Dr. Parker's clinique on Monday last—a child three months old, apparently healthy, was born with the tibia of both legs apparently broken and united again, with the bone bent at an angle of 45 degrees, and several dimples in front of the prominent end of the tibia, as though the rough end of the bone had at some time projected through. There were four toes on one foot and three on the other.—*Annalist.*

—

NEW-YORK DISPENSARY.—By the annual report of this charity, we learn that 35,904 persons have received medical and surgical aid from this institution the past year. This number exceeds that of the previous year by 7,677. Of the whole number attended, 22,225 were natives of Ireland, 10,428 natives of the U. States, 1,300 of Germany.

—

PHILADELPHIA COUNTY MEDICAL SOCIETY.—The first stated meeting of this society was held January 16th, 1849, when the following officers were elected for the current year:—*President*, Samuel Jackson, M. D., (late of Northumberland); *Vice-Presidents*, George Fox, M. D., T. F. Betton, M. D.; *Recording Secretary*, D. Francis Condie, M. D.; *Corresponding Secretary*, Henry S. Patterson, M. D.; *Treasurer*, M. M. Reeves, M. D.; *Censors*, Drs. Thomas Hobson, J. Forsyth Meigs, Wilson Jewell, Isaac Parrish, David H. Tucker.—(*Med. News and Library.*)

—

MEDICAL LITERATURE.—Kirke's and Paget's Manual of Physiology for the Use of Students, in one 12mo. volume, with 118 wood-cuts; and Bowman's new work on Practical Chemistry, in one volume 12mo., fully illustrated, have just been published by Lea & Blanchard. The same publishers are passing rapidly through the press Sharpey and Quain's extended System of Human Anatomy, edited by Dr. Leidy, to form two large octavo volumes, with very many *new* illustrations. Day on the Diseases of Old Age is nearly ready, in one 8vo. volume; and Maclise's Surgical Anatomy, in Royal 4to., is preparing. Part I. will soon be ready, and Part II. will follow quickly.—(*Ibid.*)

OBITUARY.

DEATH OF DR. STEPHEN BATCHELLER.—Died, on the 7th of November, 1848, at Royalston, (Mass.) Dr. Stephen Batcheller, aged 70 years. He was born in the town of Royalston, on the 3d of January, 1778. His preparatory

education was obtained at the Academies of Chesterfield, N. H., and New-Salem, Mass. His father being a physician, his medical education was commenced with him. The latter period of his pupilage was spent with the late Dr. Wells, of Montague, one of the most distinguished physicians of New-England. He commenced the practice of his profession at Truro, Cape Cod, in the autumn of 1800, being then 22 years of age. In 1803, he removed to Royalston, and there continued to practise successfully his profession until death. On the 1st of June, 1814, he was elected a Fellow of the Mass. Med. Society. He held the office of Counsellor of the Society for a number of years, and for two years that of Vice-President. He was one of the founders of the District Society for the county of Worcester, and for some years President of the same. For the year 1848, he was one of the delegates of the Mass. Med. Society to the American Association, held at Baltimore, which he attended, and at the time of his death was a member of the same. He literally died in the harness. He practised in two of the adjacent towns on the very day of his death. As a physician, Dr. Batcheller certainly held a high and very respectable rank, and was greatly esteemed by those of his professional brethren who were most intimately acquainted with him. He probably had, for many years, a more extensive consultation practice than any other physician in the county of Worcester, and perhaps in the State. He died of apoplexy.—(*Condensed from Prof. S. Williams' Bio. Not. in Boston Med. and Surg. Jour.*)

—

Obituary Notice of Henry Neill, M. D.—Dr. Neill was born at Snow Hill, on the eastern shore of Maryland, in the year 1783. His preliminary education was acquired in the county Academy, where he prosecuted his classic studies with success. He commenced his professional studies in Philadelphia, under the tuition of Dr. Church, a celebrated lecturer on obstetrics. In 1807, he graduated as a Doctor of Medicine, at the University of Pennsylvania; after which time he was for a number of years one of the physicians of the City Dispensary. He was chosen a Fellow of the College of Physicians of Philadelphia on the 2d day of July, 1811, and elected a Censor of the same in 1818. This office he filled ably for many years; and by the excellence of his character and the soundness of his judgment, he secured the respect and confidence of his colleagues, and in the month of July, 1844, they evinced their appreciation of his merits by electing him Vice-President of the College, and thus associating his name with the honored ones of Parrish, Otto, and Hewson, his immediate predecessors in that office. He furnished for the press several articles of great practical value, which were published in the North American Medical and Surgical Journal. He died on the 7th of October, 1845, in the 64th year of his age.

Dr. Neill's devotion to the duties of his profession was untiring. He read much, observed carefully, thought philosophically, consequently his judgment was excellent, and upon it he early accustomed himself to rely. Those who were best acquainted with him scarcely knew which most to admire, the sweet simplicity, humility, and kindness of heart, which cast a charm over his whole appearance and manner, or the lofty moral courage which ever animated him in the path of duty, raising him above all the dread of man or of man's opinions, and enabling him to go forward without shrinking, through scenes the most trying and severe.—(*Condensed from Dr. J. M. Paul's Obit. Not. in Summary of Trans. of Coll. of Physicians, Phila.*)

PART FOURTH.

FOREIGN MEDICAL RETROSPECT.

PATHOLOGY AND PRACTICAL MEDICINE.

Spontaneous Rupture of the Aorta, dissecting Aneurism. By Dr. PEACOCK.—This preparation was removed from the body of a man, 44 years of age, who had been of intemperate habits, but had never suffered from rheumatism. He dated the first symptoms of cardiac disorder to a blow which he had received on the chest twelve years before. When admitted a patient of the city of London Hospital for Diseases of the Chest, on the 30th of June last, he stated that he had been very subject to palpitation of the heart for the previous year and a half, but had been much worse since December, 1847. He was at that time in much pecuniary embarrassment, and when out one morning was suddenly seized with extreme difficulty of breathing, palpitation, pain in the region of the heart, and faintness, and with difficulty reached home. From this time he was never able to sleep in the recumbent position, and was subject to attacks of a similar description, generally once a week. These attacks usually came on at about one o'clock in the morning, and after continuing, with variable severity for half an hour or more, gradually subsided. The difficulty of breathing and palpitation under which he at all times labored, were much increased on exertion, and especially by ascending stairs. Latterly he had a hard dry cough, and scanty expectoration, very rarely tinged with blood. On examining the chest, the dulness on percussion in the region of the heart was found much extended beyond its natural limits, and there was a loud and rough double murmur over the whole of the front of the chest, but most distinctly between the left nipple and sternum. The pulse was equal in the two wrists, feeble, but not of the regurgitant character.

At the end of August, after having been some time in the country, he was suddenly called to town. On his way to the railway station he became much excited, fearing he would be too late for the train, and soon after he had started he suddenly experienced a peculiar sensation commencing in the lower part of the abdomen, followed by pain in the præcordia, and extending thence to the spine of the back: he became faint, and breathed with great difficulty. When he arrived at home, he was seen by Mr. Mackey, and found very much collapsed; the extremities cold; he had entire suppression of urine, and complained of pain in the region of the heart and in the back. He was visited by Dr. Peacock in the evening. At that time the collapse had, in some degree, subsided; he was completely collected, and was kneeling on a sofa, with his head hanging over the end. The respiration was extremely difficult, the pulse was feeble and somewhat vibratory; the extremities were cool, and he complained of agonizing pain in the region of the heart, and extending thence to the back and down the spine from the occiput. The suppression of urine continued. A loud and rough murmur attending the impulse of the heart, was audible over the whole front of the chest. It was less distinct beneath the nipple than at the upper part of the sternum. A softer

murmur was also heard with the diastole of the heart, more especially at the lower part of the sternum. He experienced some relief from the means had recourse to, but about one o'clock the following morning suddenly expired.

On examination, the pericardium was found greatly distended with serum, and the heart was enveloped in a firm dark-colored coagulum. On removing this, a ragged slit, about an inch in length, was detected in the pericardial covering of the origin of the aorta, extending transversely immediately above the base of the right ventricle. The heart was of large size, weighing not less than 20 oz. The attached pericardium displayed some concretions of old lymph on the surface of the left ventricle, and was thickened and opaque on the right ventricle. The right ventricle was large, but its walls of the natural thickness; the left ventricle was hypertrophied and dilated. The auricles were natural. The folds of the mitral valve were thickened and opaque. The aortic valves were much thickened and shortened at their free edges, and the angles of the right and left valves were adherent, so as to leave an aperture when the valves were expanded, allowing of slow regurgitation. The ascending aorta was dilated, and its coats thin and studded in places with ætheromatous deposit. At the anterior and right side of the vessel, about one inch above its origin, there was an irregular slit ¾ of an inch in length, extending obliquely across, and involving the internal and nearly the whole of the middle coat. From this rupture blood had escaped, and had become extensively infiltrated into the subserous cellular tissue, and had finally escaped through the rupture in the serous covering into the sac of the pericardium. At the posterior part of the root of the arteria innominata, there was found a second rupture, about one-third of an inch long, which extended through only part of the middle coat, and from which the blood had insinuated itself between the laminæ of the middle coat, producing a separation extending round a considerable portion of the circle of the transverse and descending aorta, for a distance of about two inches behind the origin of the left subclavian artery. The descending aorta was decidedly small in capacity.

The remarks made by Dr. Peacock, in reference to this case, were—first, that the occurrence of two ruptures in different parts of the vessel sufficiently attested the ready lacerability of the arterial coats. The rupture at the root of the arteria innominata was probably that which had first occurred, while the production of the second and larger laceration in the ascending aorta might be due to the obstruction to the flow of blood along the transverse and descending portions of that vessel occasioned by the pressure of the blood which had escaped between the laminæ of the middle coat. The second point of interest consisted in the separation of the coats of the vessel, constituting the first step in the product of the dissecting aneurism, having occurred in the laminæ of the middle coat. This, there is reason to believe, is always the case in dissecting aneurisms, though in some cases on record the sac has been described as situated between the middle and external coat. In two cases so described, Dr. Peacock had satisfied himself that there had been an error in the description given, the sac being situated in the laminæ of the middle coat in both.—*Med. Gaz.*

Hydatids of the Brain.—In communicating to the Royal Medico-Chirurgical Society the details of a case reported by Dr. Stewart, Dr. Gregory remarked on the greater rarity of acephalocysts, or hydatids in the intra-cranial structures, than in the thoracic or abdominal tissues, and referred to Dr. Craigie's observation that in the greater number of reported cases only solitary serous cysts existed, not clustered hydatids. After noticing briefly three cases, one described by Rendtorff, a second related by Mr. Mowatt, of Worthing, in the second volume of the 'Medico-Chirurgical Transactions,' and the third communicated by Mr. Burnell to the late Dr. Baillie, who remarked that none such had ever fallen under his own observation, Dr. Gregory states, as the result of

his own reading, that the normal series of symptoms flowing from the development of intra-cranial hydatids seem to be the following:—Pain in the head, succeeded, after a considerable time, by epileptic fits, and terminating in apoplexy. The Pathological Museum of the Army Medical Department at Fort Pitt, Chatham, contains two specimens of hydatids of the brain. An account of all that is known relative to these cases has been furnished to Dr. Gregory by Dr. French. In the first case, no cerebral symptoms were noticed during life. After death, cysts, described as hydatids, were found beneath the pia-mater, covering the hemispheres, in the right corpus striatum, and in the substance of the cerebrum in its immediate vicinity. In the second case, epileptic fits were present for three years and five months before death. Here were found small round bodies, like hydatids, some hard and almost cartilaginous, not only beneath the pia-mater, but also generally throughout the substance of both the cerebrum and cerebellum. They were collected to the amount of an ounce or more. Each consisted of a distinct membranous sac, which sometimes appeared double, and in layers like an onion. All the cysts contained a clear fluid, with more or less cheesy-looking matter. Dr. Gregory then communicated the following case, which, at his request, had been transmitted to him by Dr. Stewart. The patient, a gunner of the Royal Artillery, æt. 24 years and 9 months, was admitted into the Artillery Hospital, Woolwich, on the 29th of April, 1848, immediately on his arrival from Malta, with the following history: He had arrived in Malta with his company in February, 1847, and from that time suffered with constant headache. In November, 1847, he had a severe epileptic fit, followed by coma. Subsequently imbecility showed itself, and vision became impaired, the pupils sluggish, and the left eyelid became affected with slight ptosis. His memory became defective, and he became subject to fits of uncontrollable laughter. His hearing was but little affected, but both eyes were amaurotic. He died after a succession of epileptic fits, ending in coma. After death there was found on the middle fossa of the base of the cranium, between the dura-mater and the cranial bones, a mass the size of the closed fist, which proved to be a collection of hydatids. These were numerous, and varied in size from a pea to an orange. The substance of the brain was compressed, but otherwise normal.—(*Ranking's Abstract.*)

—

Œdema of the Glottis.—(*Dublin Path. Rep.*)—Dr. M'Dowell presented a specimen of œdema of the glottis, taken from the body of a man aged 48, who was admitted into the Hardwicke Hospital laboring under pneumonia of the upper lobe of the left lung, extending from above downwards, and accompanied by considerable fever. The pneumonia yielded to appropriate treatment; then there appeared some fulness, attended with pain, below the angle of the jaw, on the left side of the neck. In this situation an abscess formed, which Dr. M'Dowell regarded as one of these critical abscesses so frequent in the fever then prevalent in Dublin. There were no very urgent symptoms, but after three or four days a blush of redness appeared over the tumor, which had considerably increased in size; there was now also difficulty of deglutition. The abscess was freely opened on the 18th of January, by an incision made through the cervical fascia; healthy pus was given exit to, and much relief was experienced. At six o'clock in the evening of the same day intense dyspnœa occurred; there was also great difficulty of swallowing. The clinical clerk, being called for, found the patient sitting up in bed, breathing convulsively, his face livid, a clammy sweat every where bedewing the surface, the extremities cold, and the vital powers rapidly sinking. Dr. M'Dowell was immediately sent for, but before the messenger reached him the patient had expired, after one or two violent convulsions. On examining the body after death, the abscess in the neck was carefully explored. It was situated below the parotid gland, and a little behind the angle of the jaw on the left side. It extended deeply inwards towards the larynx, and the tissues between it and the exterior of the larynx

were condensed. On cutting into the larynx the submucous tissue of the arytenoid region was found so infiltrated that the opening of the glottis was completely obstructed; the remainder of the larynx was healthy. The upper part of the left lung was still solidified. Dr. M'Dowell remarked that the interest of this case depended on the occurrence of œdema of the glottis produced by subfacial inflammation, but only coming on after the abscess was discharging freely, and at a time when all danger of such a complication might be supposed to be at an end.

Strictures of the Urethra.—An article on the formation of organic stricture in the male urethra, with some remarks on their consequences and treatment, will be found in the Dublin Quarterly, by Dr. Wilmot. This gentleman states that, in gleety discharges, occurring in the early stage of stricture, he never thinks of prescribing medicine with the expectation of curing the discharge; he passes a plaster bougie, and in general finds a sensitive part, at or near which spot a soft obstruction can be frequently felt, which appears little, if any, impediment in the passage of the instrument; by continuing the use of the bougie every second or third day for some time, the morbid sensibility of the part will be removed, the gleety discharge will cease, and the pulpy obstruction, and all the other thickening will disappear, leaving the urethra free; in such cases it is necessary to pass the bougie for some time after all the symptoms have declined. To prevent relapses in strictures, for all are liable to return after a time, the occasional application of instruments is absolutely necessary for a long while. Dr. Wilmot has found, in his own practice, use for almost all the instruments which have from time to time been invented for the removal of strictures. The plaster bougie is a great favorite with him; it is applicable in recent stricture, and he has succeeded with it in those which are seated either at or behind the bulb. The gum-elastic catheter, the catgut bougie, and the metallic catheter and sound have all their special uses, which are in part explained and illustrated in this paper by plates. In cases of stricture, in which there is a predisposition to rigor, Dr. Wilmot advocates resort to a large dose of opium before the instrument is used. This gentleman states, also, that he has effected some cures of impassable strictures by a tolerably large gum-elastic catheter, or bougie, pressed against the stricture for fifteen or twenty minutes every second day. Dr. Wilmot also urges the necessity of hygienic treatment during the local treatment of strictures.—(*Ranking's Abst.*)

SURGERY.

Dislocation of the Pelvis.—M. Murville, in a memoir presented to the French Academy of Medicine, on luxations of the pelvic bones, relates the two following very remarkable examples of this accident. The first was the case of an officer, who fell from a second floor window, and lighted on the tubera ischii. The sacrum was displaced downwards by the weight of the body. On examination, the crests of the ilia were found to be almost touching the false ribs; the os coccygis, much shattered, projected considerably below. The patient complained of great pain in the sacro-iliac symphysis, with paralysis of the bladder and rectum, small pulse, and other signs of collapse. He was restored somewhat by stimulants, and when reaction was fully established, he was treated antiphlogistically, the displaced bones being maintained as motionless as possible. No attempt at reduction was considered advisable. This treatment was marvellously successful; not only did the patient survive, but the paralysis diminished, and in ten days the patient was able to walk with difficulty.

The second case is unique. An officer, during a review, was run away

with, the horse, at the same time, plunging violently; in one of the plunges he was thrown considerably from his saddle, upon which he descended again with such force as to lacerate the left side of the pelvic arch, without injuring the skin. A second plunge of the animal added to the mischief, completely rupturing the ligaments of the symphysis pubis. When examined, a large inguinal hernia was discovered on the left side, and in the perineum a tumor projected as large as the fist, which could be pushed upwards into the pelvis. The symphysis pubis was separated to an extent which allowed the hand to be insinuated between the ossa pubis. The hernia was reduced, and the bones kept in apposition by bandages, and in three months the patient was able to walk. M. Murville, upon this case, founded some remarks upon the feasibility of the operation of division of the symphysis in labor. In a discussion which ensued, M. Malgaigne doubted that it was a case of simple dislocation, thinking it probable that there was also fracture.—(*Prov. Med. and Surg. Jour.*)

—

Instruments for Tracheotomy. By MARSHAL HALL, M. D.—Every recollection I have of tracheotomy convinces me that it is far more advisable to remove a circular portion of the trachea, and to secure the integuments and muscles from passing over the orifice made, than to use a tube.

In one case, after the use of the tube for a few days, with much inflammation and irritation, it was removed entirely, and the patient breathed freely several weeks through the orifice only.

In another case, the tube excited so much inflammation as, I believe, to prove fatal.

I would, therefore, propose the rejection of the silver tube. This may be still more necessary in tetanus or hydrophobia, should the operation ever be performed in these cases, than in any other, on account of the augmented irritability of the spinal system.

Reduced to this simplicity, therefore, all that is required is an instrument for removing a circular portion of the trachea. A steel tube with an extremely sharp edge at the lower part, to which a piston is accurately fitted, is all that is required. All hemorrhage having ceased, this tube must be accurately applied to the trachea, and with a little force, and the piston is to be drawn smartly upwards. The portion of the trachea is drawn into the tube with a slight report.

It must be admitted, however, that such an instrument would require to be in excellent order, and to be used with a skilful hand. The profession are, therefore, indebted to Mr. Weiss, who kindly volunteered his aid in carrying out my suggestion, for proposing a material improvement in my instrument.

It may be known that a steel tube, with a lower cutting edge, through which a small screw, in the form of a cork-screw, is made to pass, is employed for removing a minute portion of the tympanum in certain cases of deafness. Mr. Weiss proposed to use a little cork-screw of this kind instead of the piston, in the instrument for tracheotomy, and such an instrument is now before me.

The portion of trachea is seized by the screw, and the steel tube descends with a rotary motion, and removes the portion of trachea with the utmost facility and certainty.

A still more simple instrument could be constructed, by substituting a small *tenaculum* for the cork-screw. Indeed, with the aid of a small tenaculum, the skilful surgeon would readily remove a circular or oval portion of the trachea, by means of a couching-needle or a very small scalpel; or such an instrument might be made to revolve round a fixed point. Thus, then, the profession is provided with a ready mode of performing tracheotomy.

Besides the case of laryngitis, of tetanus, or of hydrophobia, the patient in the stertor of drunkenness, of epilepsy, or of apoplexy, when this is extreme,

dies of asphyxia. Now that tracheotomy is rendered so safe and easy, I trust such an event will not again be permitted to occur.

There is another view of this remarkable question. I believe no violent *general* convulsion could occur, if the glottis were not closed; in other words, if the trachea were opened. Might not the faculties, or the life of the epileptic patient, be preserved by tracheotomy, the orifice being preserved open? The wound might be healed like that of the pierced ear, and opened or closed as the occasion required. I would propose this measure, as a preventive, in the case of frequent severe epileptic seizure. Over the orifice a proper guard might be worn, permitting the ingress and egress of the air, and admitting of being closed at will for articulation.

One gentleman has asserted that the hydrophobic patient does not die of asphyxia. I should think he never *saw*, or carefully observed and watched, a case of that most fearful of maladies, as he is obviously unacquainted with the writings of Dr. Physick, of Philadelphia.

I need not remind my readers of the importance of some proper instrument for the performance of tracheotomy in *infants* and children, in whom the free *space* over the trachea is so limited.—(*London Lancet.*)

—

Gutta-Percha in Wounds.—Gutta-percha may be readily dissolved in bisulphuret of carbon in all proportions, and without the aid of heat. When a few drops of this solution are placed on the surface of any object, the carburet of sulphur evaporates with great rapidity, and leaves a thin layer of gutta-percha, which acts as a preservative against the influence of air. On account of this, M. Vogel has employed this solution to cover wounds caused by a cutting instrument. The carburet of sulphur in evaporating produces a sensation of cold in the skin, which acts as an antiphlogistic, and a reünion of the margins of the wound is readily effected. The sulphuret of carbon should be quite pure and free from all traces of sulphuretted hydrogen. This may be effected by treating it with litharge or carbonate of lead. He has also employed this solution for covering the surfaces of fruit which it is wished to preserve in a collection of natural history. Up to the present time a solution of wax has been employed for this purpose, but there is a great difficulty in removing the wax from the fruit without tearing the surface. The solution of gutta-percha, which completely prevents the fruit from drying, has also the advantage of being easily removed by means of hot water. The solution offers also a great advantage for paintings and drawings, for it possesses the property of fixing in the paper, pencil, chalk, or charcoal drawings in such a manner that it is impossible to injure them by friction.—*Med. Times.*

—

Treatment of Lupus.—In the "Revue Méd. Chirurgical," M. Emery publishes the results of his experience in this disease. He has found that no treatment, whether internal or external, possesses the efficacy of cod-liver oil in large doses. The quantity of this medicine exhibited by M. Emery will doubtless astonish our readers. It is in doses from sixteen to thirty-two ounces daily that it should be used. With every deference to the learned physician of the Hôpital St. Louis, we must say that few patients will be able to keep on their stomachs such exaggerated quantities of a particularly nauseous medicine, and that, even if they succeeded in not rejecting it, it is questionable if anything like that amount can possibly be absorbed, oily substances being generally changed within the stomach into insoluble adipocerous compounds. M. Emery states, however, that, having had occasion to treat seventy-two cases of confirmed lupus, twenty-eight were completely cured by a persevering use of this medicine.—*Ibid.*.

MIDWIFERY AND DISEASES OF FEMALES.

Accidental Expulsion of a Child, without its experiencing any injury from the fall.—(*Med. Gaz*)—A woman of short stature, 34 years of age, strongly built, gave birth to a child in an ordinary labor one year after marriage. On the 10th of July, being near the end of her second pregnancy, the period of gestation was accidently terminated. She was engaged in a violent dispute with her husband, which was nearly coming to blows: she abruptly rushed into an adjoining room, and was in the act of sitting on the bed, when suddenly strong labor came on. Before she could reach the door and call for help, the pains became so severe that she was obliged to lean for support against a chair; at the same moment the child fell suddenly to the ground, without being in the least injured. On his visit, Dr. Pickford found not even a bruise on the vertex, on which the child had fallen. The placenta was expelled as he entered, and it showed that the cord had been ruptured at about the distance of two inches from the umbilicus. The child was strong and fully developed.—*Dr. Pickford*, in *Henle's Zeitchrift für rationelle Medizin*, vol. vii., part i., p. 25.

—

The use of Ergot in Post-Partum Hemorrhage.—We have mentioned the administration of ergot of rye as a preventive of *post-partum* hemorrhage; and in the hospital we have seen such decidedly favorable results from its use, when employed for this purpose, as to have no hesitation in pronouncing the practice to be both safe and efficient. With this intention it may be given at one or other of three periods: namely, when the head of the child is on the perineum, and about to be expelled; or immediately after the head has cleared the os externum, and before the shoulders have passed; or, thirdly, so soon as the insertion of the cord into the placenta can be felt. "By giving ergot before the child has been expelled, some time may be gained; but should the placenta be morbidly adhering to the uterus, the difficulty of introducing the hand for its removal will be greatly increased. By adopting the third plan, this source of apprehension is avoided. To this method it may be objected that much time will, perhaps, elapse, and a considerable quantity of blood be lost, before the ergot is administered; nevertheless, the possibility of the placenta being morbidly adherent should be ever present in the mind of the practitioner, and deter him from resorting to a measure which may so greatly augment the danger of the complication" Dr. Johnson, who introduced the practice into this hospital, generally gives the ergot according to the mode last recommended. In certain instances, however, where from previous losses it was a matter of the utmost importance to prevent any further hemorrhage after delivery, we have not scrupled to administer it in the second way spoken of above, and hitherto without any unpleasant effect. Here, as on every other occasion, we should be careful to use ergot of undoubted genuine quality, for otherwise its exhibition can be productive of no good, and will only cause disappointment. Few medicines so readily spoil, or are to be found of such variable quality; and this circumstance goes far, we think, to reconcile the conflicting opinions which have been entertained respecting its properties and doses.—*M'Clintock and Hardy's Practical Observations*, pp. 220 and 221.

—

Prolapsus of the Ovary.—After relating a case of inflamed ovary, where one of its most marked effects was profuse and long standing menorrhagia, Dr. Rigby remarks, that in the case the symptoms varied from their ordinary course, and depended upon the position of the ovary, being much more backwards than usual, and almost approaching to the hollow of the sacrum, hence the inguinal pain generally felt in cases of oophoritis was absent, and, as usual in cases of retroversion, the pain was confined to the region of the sacrum, and greatly increased by the passage of solid fæces through the rectum. This displacement of the ovary downwards and backwards into the recto-

vaginal pouch, when in a marked degree, forms a most agonizing affection. In three or four cases which Dr. Rigby has seen, the ovary has been found lower than usual, and approaching nearly to the central line. The slightest touch produces severe pain, of that sickening intolerable character which pressure on the testicle produces in the male, and especially when it is inflamed. Prolapsus of the ovary is the name given to this affection by Dr. Rigby.—(*Med. Times.*)

—

Twins locked in each other. By Prof. MURPHY.—(*Med Gaz.*)—A complication of a singular character has been recorded in which delivery was rendered extremely difficult. The late Dr. T. Ferguson, of Dublin, relates a case of twins in which the first child presented the foot, and was delivered without any unusual obstacle in the progress of the labor until the child's body was so far protruded as to enable Dr. Ferguson to ascertain, by the pulsation of the funis, then without the os externum, that the child was alive. From this stage of the delivery he began to experience a most unusual and unaccountable resistance to the further descent of the child. This difficulty was produced by the head of the second child descending before the head of the first, so that each locked in the other. The pulsation in the funis of the first child continuing, Dr. Ferguson wished to perforate the head of the second, that caused the obstruction: there was some delay in obtaining instruments; and, in the interval, the pulsation of the first child ceased; but, to the surprise of Dr. Ferguson, powerful expulsive pains forced down the heads of both over the perineum, and the second child was born living! Two years ago, Mr. Elton, of Windsor, related a similar case. The feet of the first child presented, and were brought down; but, "after the thighs had passed, the delivery became slow and increasingly difficult; the abdomen suffered great compression in passing; the thorax still more; the difficulty became greater with the further progress of the body; the arms were extracted with much trouble, and, it then being practicable, an examination was made. I (Mr. Elton) found the vertex of a full-sized head presenting immediately over the breast in the position where there should have been a chin; the anterior base of the neck could be traced in close and compressed contact with the presenting head, the latter firmly impacted in the pelvic cavity." Mr. Elton divided the neck of the first child; and, having removed the truncated body, applied the forceps to the second child, which he delivered, but could not save, although attempts "to restore animation were long and anxiously continued." What is to be done in such a case as this? I certainly should not be disposed to destroy either child. Before I took up the perforator or the amputating knife, I should weigh well the practicability of applying the long forceps to the head of the second child, and endeavor to imitate nature in the effort to force both heads over the perineum. If you succeeded, its laceration might be the consequence; but it would be some recompense to save a life that otherwise you must destroy."

—

Preternatural Labors. By Prof. MURPHY.—"The *statistics* of preternatural labors prove that their frequency is in the proportion of one in every thirty or forty labors; and of these, presentations of the breech are the most frequent; those of the feet next in order, and shoulder positions the rarest. We find, also, that a large proportion of these cases are premature deliveries, many of the children being putrid. Hence we would infer that in many instances this deviation from the natural position of the child is caused by its unusual mobility in the uterus at the time of labor. The child being small (premature,) and the liquor amnii abundant, its position is liable to be constantly disturbed by the action of the uterus; and if the membranes were ruptured suddenly, the child would most likely be forced down into the pelvis in a preternatural position. A full-grown child might also be displaced by any sudden and violent action of the uterine fibres, the result of shock, during pregnancy. Putrid

children are especially liable to this displacement, because labor is generally induced because of the death of the fœtus, and not in consequence of the descent of the child on the cervix uteri: hence the uterus protrudes the inert mass from its cavity through the pelvis in whatever form it may have assumed at the time that the expulsive action of the uterus was so excited."—*Ibid.*

Malignant Disease of both Ovaries.—By Dr. Johnson.—A female, aged forty, had suffered for the last four months from constant vomiting whenever she took food of any description except diluents. She complained also of great pain in the region of the epigastrium and abdomen, which prevented her from assuming the recumbent posture. Latterly ascites came on, and she rapidly wasted away, and died six months after her illness first commenced.

On post-mortem examination, the abdomen was found quite full of fluid. On discharging this, the great omentum was discovered to be changed into a mass of disease, composed of cancerous tumors about the size of a nut. The interior of the stomach was quite healthy. The peritoneum covering the diaphragm and the large and small intestines was studded with small cancerous tumors. The uterus was perfectly healthy, and of the normal size; but in place of the ovaries there was on each side a rounded mass about the size of an orange, consisting of the same structure as the tumors observed in the omentum.

The case was interesting, inasmuch as the constant vomiting immediately after eating had led to the diagnosis of the extensive disease of the cardiac orifice of the stomach.—*Ibid.*

MATERIA MEDICA.

Mercury and its Effects.—Mr. Hancock inquired if any members had tried the plan recommended by some French surgeons, of giving calomel in very small doses in inflammatory cases? The dose recommended was a twentieth part of a grain every hour, day and night, until the specific effect of the medicine was produced. He had tried this plan with two patients in Charing-cross Hospital, both of whom had been admitted with inflammation of the testicle, consequent upon gonorrhœa. In one case he gave a twentieth of a grain of calomel every hour; in the other, a twentieth of a grain every three hours. In the first case, the patient was salivated in thirty-six hours; in the second case, in forty-eight hours. The advantages of this mode of producing ptyalism were, that the effect was milder and more controllable than where larger doses were administered; the bowels were also unaffected. The mode of its administration was as follows:—Calomel, one grain; confection of opium, a scruple; divide in twenty pills—one every hour. In the cases related, the effects of this medicine were most decided.

Mr. Middleton had been occasionally surprised to see small doses of the mercury and chalk produce ptyalism in children of all ages when given merely as an alterative. Large doses of calomel failed to produce any such effect. He had seen salivation produced in a child by a single dose of the mercury with chalk.

Dr. Willshire had never seen ptyalism in a very young child, though he had observed its effects on the mouth from the administration of this medicine.

Mr. Hooper had never seen a child salivated by calomel. With respect to small doses of calomel to produce the specific effects of mercury on the constitution, he had long been in the habit of employing them. One grain every three or four hours he found more effective than the larger doses.

Mr. Hird said, that if all the beneficial effects of mercury could be obtained

from the small doses mentioned by Mr. Hancock, then, indeed, would the new plan be very useful. His opinion, however, founded, it was true, on his experience of the small doses, was, that in acute inflammatory diseases of serous membranes they would be found less effective in lowering the heart's action, and producing the other specific effects of mercury, than the more commonly-employed doses. He had seen the worst effects of mercury in children when employed as alteratives.

Dr. Willshire admitted that the specifics of mercury were exerted most beneficially. In cases of syphilis in young children, one grain of the mercury with chalk, and two grains of soda, night and morning, generally, in ten or fourteen days, succeeded in effecting a cure, but without producing salivation. He threw out a hint that mercury in inflammation might not be so effective as some had imagined, and appealed to the opinions expressed by Dr. Alison, and by a reviewer in *Forbes's Journal*, on this point.

Mr. Robarts believed that the effects of mercury were influenced and modified much by the period of year, state of weather, &c., at which it was administered. He had tried the plan of treating chronic catarrh with small doses of blue-pill, as recommended by Dr. F. Thompson, and published in *The Lancet*, with much success.

Mr. Hancock had found, in cases where it was thought almost impossible to produce salivation, that a few grains of iodide of potassium, administered in the intervals, was most effective.

Mr. Bishop had observed the same circumstances.—*Lond. Med. Gaz.*

—

Observations on two New Febrifuges.—(*Med. Gaz.*)—The forests which yield the cinchonas are gradually becoming exhausted: hence the price of these and of their salts is daily rising. These circumstances have directed the attention of practitioners to the discovery of substitutes for these expensive remedies. Thus, besides arsenous acid and salicine, the anti-periodic properties of which are well known, there are others whose operation has been less accurately studied: among these, two more particularly have been made the objects of investigation: they are the bark of the Baobab or Adansonia Dentata, and the sulphate of Phyllerine.

The *Baobab* or *Adansonia*, is a gigantic tree, indigenous to Senegal, but it is readily acclimated in colder countries, so that should its febrifuge properties become established, the bark will be procurable in abundance.

The bark, which is the most active part, has a tolerably smooth surface of a blackish gray color, and is studded all over with lichens: its inner surface is of a pure white, quickly reddening on exposure to the air; it contains a large quantity of mucilage, and has scarcely any taste or smell. Its aqueous decoction has somewhat the odor of the cinchonas; it is of a clear reddish color, insipid, holding a large quantity of mucilage, the decomposition of which may be prevented by the addition of a small quantity of sulphuric acid or alcohol. Without this precaution the decoction becomes decomposed in a few hours; but, strange to say, this does not destroy its medicinal qualities. When cold and sweetened, this decoction is not unpalatable.

M. Duchasaing has found this bark highly serviceable in agues, even where quinine had failed; and he states that the planters of Guadaloupe cure their negroes by it alone, though, *à priori*, one would not expect that a mucilaginous bark, free from bitterness, should possess anti-periodic properties; while we see also from the effects of arsenous acid, that bitterness is not necessary to this medicinal action. Galberry and Frank have before stated that the fruit, and Adanson that the leaves, possess anti-periodic properties; but Duchassaing is the first who has pointed out that the bark is the most active part of the plant.

Sulphate of Phyllerine.—M. Jachelli, of Ferrara, has lately added this alkaloid to the list of febrifuges; it is obtained from the well-known evergreen

shrub, *Phyllerea latifolia*. It was known, before the researches of Dr. Jachelli, as a cooling astringent, but it is now found to possess the same active anti-periodic properties as others of its class, the ash, the olive, etc.

An extensive series of experiments have been made since the year 1825, on the action of this alkaloid in agues, by Dr. Jachelli. He has compared its operation with that of—1st, a powder of the young leaves and twigs, in doses of 30 grains during the intermission; 2dly, a simple decoction of the plant to 60 of water, down to one-third, and given in large doses also during the intervals; 3d, with a compound decoction formed by adding 30 minims of dilute sulphuric acid to the preceding. The sulphate, in doses of from 12 to 15 grains during the apyrexia, has evinced its superior activity over other preparations of the phyllerea; thus of 20 patients treated witn the sulphate, 20 were cured; of 13 to whom the powder was administered, 11 were cured; of 18 to whom the compound decoction was given, 14 were cured; of 16 who took the simple decoction, 7 were cured.—*Bulletin Général de Thérapeutique.*

ANIMAL CHEMISTRY.

Analyses of Venous Blood. By Dr. Day.—Numerous analyses of healthy venous blood have been instituted during late years. Those of Lecanu, Denis, Simon, Nasse, and Becquerel and Rodier, are regarded as amongst the most accurate, and I believe that the discrepancies existing between them are merely those which must naturally arise from the differences in the methods of analysis pursued by these chemists. I believe it to be utterly impossible to determine a formula for the composition of healthy blood that would serve as a standard by comparison with which we might detect absolute deviations in other forms and specimens of blood; for not only may we conceive that there are changes in the blood of the same individual at different times of the day, according to the amount of pabulum poured into the circulating system, and that different methods of life, and various modes of nourishment would cause some changes, but we know by actual analysis, that sex, age, and temperament, do impress peculiar changes on it.

All, then, that we can venture to do is, to give the *maxima*, *mean* and *minima* values of the different constituents of healthy blood, and, in order that they may be at all trustworthy, they should be deduced from a large number of analyses.

The following table is drawn up by Becquerel and Rodier, from the analyses of the blood of eleven men, all of whom were considered to be in perfect health, and varying in age from 21 to 56 years:—

	Mean.	Maxima.	Minima.
Density of defibrinated blood, -	1060·2	1062·0	1058·0
Density of serum, - - -	1028·0	1030·0	1027·0
Water, - - - - -	799·0	800·0	760·0
Solid constituents, - - -	201·0	240·0	200·0
Fibrin, - - - - -	2·2	3·5	1·5
Fat, - - - - -	3·2	6·6	2·0
Albumen, - - - -	69·4	73·0	62·0
Blood-corpuscles, - - -	141·1	152·0	131·0
Extractive matters and salts, -	6·8	8·0	5·0
1000 parts of incinerated blood contained—			
Chloride of sodium, - -	3 10	4·20	2·30
Other soluble salts, - -	2·50	3·20	2·00
Earthy phosphates, - -	0·33	0·70	0·22
Iron, - - - - -	0·56	0·63	0·51

The composition of the blood of the healthy female, as deduced from eight analyses, is given in the following table:

	Mean.	Maxima.	Minima.
Density of defibrinated blood,	1057.5	1060·0	1054·0
Density of serum, - -	1027·4	1030·0	1026·0
Water, - - - -	791·1	813·3	773·0
Solid constituents, - -	208·9	227·0	187·0
Fibrin, - - - -	2·2	2·5	1·8
Fat, - - - - -	2 2	5·7	2·0
Albumen, - - - -	70·5	75·5	65·0
Blood-corpuscles, - -	127·2	137·5	113·0
Extractive matters and salts,	7·4	8·5	6·2
1000 parts of incinerated blood contained—			
Chloride of sodium, - -	3·90	4.00	3·50
Other soluble salts, - -	2·90	3·00	2·50
Earthy phosphates, - -	0·35	0·60	0·25
Iron, - - - - -	0·54	0·57	0·48

From these tables, Becquerel and Rodier maintain that the influence of sex is so great, especially in reference to the amount of water and of blood-corpuscles, that, in order to arrive at any correct conclusions respecting the deviations of morbid blood from the healthy standard, diseased male and female blood must be always contrasted with the respective male and female blood in a state of health.—(*Med. Gaz.*)

—

On the Chemical Statistics of the Human Body.—(*Paris Academy of Sciences.*)—M. Regnault presented a communication from M. Barral, entitled "On the chemical statistics of the human body." M. Barral states in this communication that he has endeavored to resolve, by a direct analysis of the food and the evacuations, the following problem:—"the quantity and the elementary composition of the food, solid and liquid, taken per diem being known, to determine the quantity and the elementary composition of the evacuations, perspiration, and other excretions, so as to ascertain the gains and losses of the human body." The following are the conclusions and the *résumé* of his experiments:

1. He found that the carbon burnt each day by the oxygen of respiration was identical in proportion to that arrived at by another mode of experiment by MM. Andral and Gavarret; but to the causes of variation indicated by those authors he adds a new one:—the quantity of carbon consumed in winter is about one-fifth more than that consumed in summer.

2. The quantity of nitrogen contained in the food is greater than that of the evacuations, so that a part of this gas must be exhaled by the perspiration. This portion rises as high as one-third or one-fourth of the nitrogen taken into the system, but it is only one-hundreth part of the carbonic acid produced. In a healthy state of the system, the relation of carbon to nitrogen is about 100 to 8.

3. The hydrogen and oxygen are not found in the exact proportions for the formation of water; there is always in the food an excess of hydrogen which may be considered as in part burnt by the oxygen of respiration. The hydrogen thus burnt is on an average equal to one-third of the carbon transformed into carbonic acid. This hydrogen burnt in respiration is not all the hydrogen contained in the food: the evacuations are richer in hydrogen than the food, in the proportion of about 8 to 5.

4. The oxygen necessary for the transformation into carbonic acid and water, of the carbon and hydrogen of the food burnt in respiration, is to the food as 1 to 3.

5. The water, as well natural as that formed as a consequent of respiration and digestion, is on the average 67-100ths of the food, increased by the oxygen of the atmosphere combined with it. The water of perspiration is generally more than that of the evacuations. In old people, however, the water of perspiration is reduced to one-third of the water of the urine and of the excrements.

6. In three experiments a larger quantity of chlorine was found in the food than in the evacuations; in two other experiments a small excess of chlorine was found in the evacuations. A certain quantity of chloride of sodium, amounting almost to one-third of the quantity taken, does not pass off by the evacuations.

7. The chemical statistics of the human body may thus be stated:—

Taken into the system—	
Liquid and solid food,	74·4
Oxygen,	25·6
	100·0
Passed out of the system—	
Water of respiration,	34·8
Carbonic acid,	30·2
Evacuations,	34·5
Other losses,	0·5
	100·0

In general the perspiration is to the evacuations as 2 to 1; but in old people the evacuations exceed the perspiration.

In deducting from the total quantity of heat produced each day, the heat taken by the evaporation of the transpired water, that taken by the air of the respiration, and lastly, that taken by the food and the evacuations, it is found that on an average the heat lost by radiation is 30,000 per diem, or 1250 per hour, in summer, and 42,000 per diem, or 1750 per hour, in winter. The following will serve to indicate the heat taken by the body, and the heat lost by radiation, etc.:—

Heat taken by the evaporation of the water of perspiration,	24·1
Heat carried off by the air of respiration,	7·3
Heat taken by the food,	2.2
Ditto by the evacuations,	1·8
Heat lost by radiation and by contact,	64·6
	100·0

[*Med. Gaz.*

TO READERS AND CORRESPONDENTS.

We particularly request the attention of our readers and contributors to the Prospectus on the cover of this number. The Collaborators' list following it, is, owing to want of time, necessarily incomplete. It will be added to in our next number.

From our country subscribers we are desirous of receiving accounts of endemic and epidemic diseases—a branch of medicine, the literature of which, there is good reason to believe, is too much neglected by the profession generally.

In our next number we shall, as far as possible, give our readers a full account of the success of the different modes instituted for the treatment of Cholera, both in Europe and this country, during the present epidemic.

To Publishers.—The attention of publishers is called to the fact that this Journal changed publishers with the March number. This notice has become necessary from the circumstance that considerable delay has of late taken place in the reception of recent publications. They will please direct, pre-paid, to the Editor of the New-York Journal of Medicine, &c. care of D. Fanshaw, 575 Broadway,

---

Western Journal of Medicine and Surgery.—Will the editor of this Journal please notice, that in our acknowledgement of exchanges received, not a number of his journal has come to hand since May, 1848.—Our Journal has been sent regularly.

The following publications have been received:

A Practical Treatise on the Domestic Management, and most Important Diseases of advanced Life. With an Appendix containing a series of cases, Illustrative of a new and successful mode of treating Lumbago, and other forms of Chronic Rheumatism, Sciatica and other Neuralgic affections, and certain forms of Paralysis. By George E. Day, M. D., Fellow of the Royal College of Physicians, and Physician to the Western General Dispensary. Philadelphia: Lea and Blanchard, 1849; 8vo. pp. 226. (From the Publishers.)

Anæsthesia: Or the Employment of Chloroform and Ether in Surgery, Midwifery, etc. etc. By J. Y. Simpson, M. D. F.R.S.E. Professor of Midwifery in the University of Edinburgh, Physician Accoucher to the Queen in Scotland, etc. etc. Philadelphia; Lindsay and Blakiston, 1849; 8vo. pp. 248. (From the Publishers.)

Clinical Midwifery. Comprising the History of five hundred and forty-five Cases of Difficult Preternatural, and Complicated Labor. By Robert Lee, M. D., F. R. S., Fellow of the Royal College of Physicians, London; Physician to the British Lying-in Hospital; Lecturer on Midwifery at St. George's Hospital, etc. etc. First American, from the second London edition. Philadelphia, Lea and Blanchard, 1849. 12mo. pp. 238. (From the Publishers.)

Treatise upon the Nature and Treatment of Morbid Sensibility of the Retina, or Weakness of the Sight. Being the Dissertation to which the Boylston Medical Prize, for 1848, was awarded upon the following question,—"What is the Nature and best Mode of Treatment of that affection of the Eyes, commonly called Morbid Sensibility of the Retina?" By John H. Dix, M. D., M. M. S. S. Boston: William D. Ticknor and Co. 1849. 12mo. pp. 146. (From the Publishers.)

The Maternal Management of Children, in Health and Disease. By Thomas Bull, M. D., Member of the Royal College of Physicians; Author of "Hints to Mothers," for the management of their health, etc. etc. From the third London edition. Philadelphia: Lindsay and Blakiston, 1849; 12mo. pp. 406. (From the Publishers.)

Practical Pharmacy: The Arrangements, Apparatus and Manipulations of the Pharmaceuticle Shop and Laboratory. By FRANCIS MOHR, Ph. D., Assessor Pharmacæ of the Royal College of Medicine, Coblentz; and THEOPHILUS RENWOOD, Professor of Chemistry and Pharmacy to the Pharmaceutical Society of Great Britain. Edited, with extensive additions, by William Proctor, Jun. Professor of Pharmacy in the Philadelphia College of Pharmacy. Illustrated by five hundred engravings on wood. Philadelphia: Lee and Blanchard, 1849; 8vo. pp. 576. (From the Publishers.)

Beneficence of Design in the Problem of Evil, Vindicated by the law of Causation in the Physical Construction of Matter. By a Journeyman. Tenth Bridgewater Treatise. New-York: Leavett, Trow, and Co. 1849; 12mo. pp. 213. (From the Publisher.)

State of the New-York Hospital and Bloomingdale Asylum, for the year 1848. New-York, 1849; 8vo. Royal pp. 28.

Summary of the Transactions of the College of Physicians of Philadelphia, from February 6th, 1849, to April 3d, 1849. Philadelphia: 8vo. pp. 70. (From the Committee.)

Transactions of the Medical Society of the State of New-York. Vol. VII. Part 3. Albany: 1849, 8vo. pp. 78. (From the Society.)

Report of the Standing Sanitory Committee of the Board of Health of the city of New-York, on the subject of Asiatic Cholera, at present prevailing at the Quarantine Establishment of New-York. At Staten Island. Second Edition. New-York: 1849; 8vo. pp. 32. (From Dr. J. B. Beck.)

Tarnsactions of the Medical Society of the State of New-York. Vol. VII. Part 3rd. Albany: 1849; 8vo. pp. (From Dr. J. B. Beck.)

Letters upon Cholera. By FRANK A. RAMSEY, M. D. KNOXville, Tennessee: 1849; 8vo. pp. 30. (From the Author.)

Researches upon the Vital Dynasties of Civil Government. By BENNET DOWLEN, M. D. Corresponding Member of the Academy of Natural Sciences of Philadelphia, etc. etc. Reprinted from the New-Orleans Medical and Surgical Journal. New-Orleans: Weld and Company, 1849; 8vo. pp. 29. (From the Author.)

Treatise on the Dislocations of the Shoulder. By GEORGE C. JERVIS, M. D. Author of Lectures on Fractures and Dislocations, etc. etc. Together with important cases illustrating the benefits of the Adjuster. Compiled by George Kellogg, A. M. Birmingham: 1848; 8vo. pp. 32. (From the Author.)

Fracture Tables. Showing the results of Treatment of one hundred and thirty-six cases. By F. H. HAMILTON, M. D., Professor of the Principles and Practice of Surgery and of Clinical Surgery in the Medical Department of Buffalo University. Reprinted from the Buffalo Medical Journal. Buffalo: 1849; 8vo. pp. 8. (From the Author.)

A Case of Carotid Aneurism, and some remarks on the Diagnosis of that Disease, published in the Southern Medical and Surgical Journal, with Dr. PAUL F. EVES Comments thereon. And a Reply by James M. Green, M. D. Macon: 1849; 8vo. pp. 56. (From the Author)

A Paper on Epidemic Meningitis. Read before the Medical Society of Montgomery. Alabama, in 1848. By S. AMES, M. D. 1849; 8vo. pp. 58. (From the Author.)

Sixth Annual Report of the Managers of the State Lunatic Asylum. Made to the Legislature, February 1st, 1849. Albany: 1849; 8vo. pp. 64. (From the Asylum.)

Report of the Pennsylvania Hospital for the Insane for the year 1848. By THOMAS KINKBRICK, M. D. Physician of the Institution. Published by Order of the Board of Managers. Philadelphia: 1849; 8vo. pp. 50. (From the Hospital.)

Sixth Annual Report of the Managers of the State Lunatic Asylum Made to the Legislature, February 1st, 1849. Albany: 1849; 8vo. pp. 64. (From Dr. J. B. Beck.)

Report of the Eastern Asylum in the City of Williamsburgh, Virginia, 1848. Richmond: 1849; 8vo. pp. 31. (From the Asylum.)

Twelfth Annual Report of the Trustees of the Vermont Asylum for the Insane. September, 1848. Rutland: 1848; 8vo. pp. 12. (From the Asylum.)

Report of the Board of Visitors of the Boston Lunatic Hospital, in the matter of the Superintendent of that Institution, 1849. Boston: 1849; 8vo. pp. 17. (From Dr. Steadman.)

Thirtieth Congress—Second Session. Report No. 52, to the House of Representatives, on Patent Medicines. By Dr. EDWARDS, made February 6th, 1849; 8vo. pp. 33. (From Dr. Edward.)

Thirtieth Congress—Second Session, Report No. 114 to the House of Representatives, on the Memorial of WILLIAM T. G. MORTON, on Sulphuric Ether. By Dr. EDWARDS. Made February 23rd, 1849; 8vo. pp. 46. (From Dr. Edwards.)

Anniversary Discourse before the New-York Academy of Medicine, Delivered in the Church of the Crucifixion, November 8th, 1848. By JAMES R. MANLEY, M. D. Published by order of the Academy. New-York: 1849; 8vo. pp. 36. (From Dr. J. B. Beck.)

Valedictory Address on the Sources and Benefits of Professional Earnestness. Delivered March 3rd, 1849, to the Graduates of the Medical College of Ohio. By JOHN P. HARRISON, M. D., Dean of the Faculty. Cincinnati: 1849; 8vo. pp. 15. (From the Author.)

Valedictory Address to the Medical Class of Transylvania University. By E. L. DUDLEY, M. D., Professor of General and Pathological Anatomy and Physiology. Published by the Class. Lexington: 1849; 8vo. pp. 15. (From the Author.)

Announcement of the Medical College of Evansville. Evansville, Indiana. Session of 1849-50. 8vo. pp. 7. (From the College.)

College of Physicians and Surgeons in the City of New-York. University of the State of New-York. Annual Catalogue of the Regents of the University and of the Trustees, Faculty, and Students of the College, 1848-9. New-York: 1849; 8vo. pp. 12. (From Dr. J. B. Beck.)

Catalogue of the Medical Department of Transylvania University, for the Session of 1848-49 With a list of the Graduating Class, and also, the Announcement for the Session of 1849-50. Lexington, Kentucky: 1849; 8vo. pp. 12. (From the College.)

The following Journals have been received in Exchange:

The American Journal of Insanity, edited by the Officers of the New-York State Lunatic Asylum, for April. (Quarterly. Utica, N. Y.)

The American Journal of the Medical Sciences, edited by Isaac Hays, M. D. for April. (Quarterly. Philadelphia.)

The American Journal of Pharmacy, edited by Joseph Carson, M. D. and William Proctor, M. D. Jr. for April. (Quarterly. Philadelphia.)

The New-Jersey Medical Reporter, and Transactions of the New-Jersey Medical Society, edited by Joseph Parrish, M. D. for April. (Quarterly. Burlington.)

The Medical Examiner and Record of Medical Science, edited by Francis G. Smith, M. D. and David H. Tucker, M. D., for March and April. (Monthly. Philadelphia.)

The New-Orleans Medical and Surgical Journal, devoted to Medicine and the Collateral Sciences, edited by A. Hester, M. D. for January and March. (Bi-Monthly. New-Orleans.)

Southern Medical and Surgical Journal, edited by Paul F. Eve, M. D. for March and April. (Monthly. Augusta.)

The Charleston Medical Journal and Review, edited by P. C. Gaillard, M. D. and H. W. De-Saussure, M. D. for March. (Bi-Monthly. Charleston.)

St. Louis Medical and Surgical Journal, edited by M. L. Linton, M. D., John S. More, M. D., Wm. M. McPheeters, M. D. and Joseph N. McDowell, M. D. for March. (Bi-Monthly. St. Louis.)

The North Western Medical and Surgical Journal, edited by W. B. Herrick, M. D. and J. Evans, M. D. and Edwin G. Meeks, M. D. January and February. (Bi-Monthly. Chicago and Indianapolis.)

The Western Journal of Medicine and Surgery, edited by P. Yandell, M. D. Not received since May last. (Monthly. Louisville.)

The Western Lancet and Hospital Reporter, edited by L. Lawson, M. D. and John P. Harrison, M. D. for March and April. (Monthly. Cincinnati)

The Ohio Medical and Surgical Journal, edited by John Butterfield, M. D. Not received ceived—November, January and March. (Bi-Monthly. Columbus.)

Buffalo Medical Journal, and Monthly Review of Medical and Surgical Science, edited by Austin Flint, M. D. for March and April, (Monthly. Buffalo.)

The Boston Medical and Surgical Journal, edited by J. C. V. Smith, M. D. Numbers for March and April received. (Weekly. Boston.)

The Annalist, a Record of Practical Medicine in the City of New-York, edited by N. S. Davis, M. D. for March and April. (Semi-Monthly. New-York.)

The Medical News and Library, edited by ——, for March and April. (Monthly. Philadelphia.)

The New-York Dental Recorder, edited by C. C. Allen, M. D. Dentist, for March and April.—(Monthly. New-York.)

The British-American Journal of Medicine and Physical Science, edited by Archibald Hall, M. D., L. R. C. S. E., for March and April. (Monthly. Montreal.)

Dublin Quarterly Journal of Medical Science, edited by ——, for February. (Quarterly.—Dublin, Ireland.)

Monthly Journal and Retrospect of Medical Science, edited by ——. Not received since May last. (Monthly. Edinburgh and London.)

London Medical Gazette or Journal of Practical Medicine, edited by ——, for December, January, February and March. (Weekly. London.)

The British Record of Obstetric Medicine, Surgery and Diseases of Women and Children, *&c. &c.* edited by Charles Clay, M. D. (Vol. 1st, for 1848.)

☞ **Communications intended for publication, and Books for Review, should be sent *free of expense*, directed to the Editor of the New-York Journal of Medicine, care of Daniel Fanshaw, 375 Broadway, New-York. Persons at a distance may direct parcels, *paid* as above, under cover, to Lindsay & Blakiston, Philadelphia; or Wm. D. Ticknor & Co., Boston; or John Wiley, Paternoster Row, London. The attention of Correspondents is respectfully requested to the above, as the publisher is frequently subjected to unnecessary expense for postage and carriage.**

All remittances of money and letters on the *business* of the Journal, should be addressed to the publisher.

The advertising sheet belongs to the business department of the Journal, and all communications for it should be addressed to the publisher, under whose exclusive control it is.

CONTENTS.—No. VI.

(NEW SERIES.)

PART I.—ORIGINAL COMMUNICATIONS.

Page.

ART. I.—Malignant Polypus of the Nose; Ligature of the Common Carotid Artery; Death with Cerebral Symptoms. By W. H. VAN BUREN, M. D. Surgeon to Bellevue Hospital. 297

ART. II.—Case of Abdominal Tumor. By B. W. M'CREADY, M. D. One of the visiting Physicians to Bellevue Hospital. 302

ART. III.—Report of a Case of Tubercular Meningitis. By WILLIAM H. MACNEVEN, M. D. 306

ART. IV.—Case of "Corroding Ulcer" of the Uterus. By S. CONANT FOSTER, M. D. Visiting Physician to Bellevue Hospital. . . . 313

ART. V.—Case of Placenta Prævia. By C. L. MITCHELL, M. D. of Brooklyn, Long Island. 315

ART. VI.—Extracts from the Reports of the Proceedings of the New-York Pathological Society. (Selected and prepared by Committee of Publication.) 317

1 Report on the Diagnostic Signs of Portal Phlebitis. WILLIAM C. ROBERTS, M. D. *Reporter.* (Submitted December 23d, 1845.) 321
2 Case of Lithotomy in a Child—Anæsthesia.—Death within forty-five hours after the operation. By JAMES R. WOOD, M. D. 326
3 Cancer of Liver and Uterus, with Multilocular Cysts of Ovary. By T. METCALFE, M. D. 328
4 Perforation of Appendix Vermiforme.—Peritonitis.—Recovery. 330
5 Death from injury to the Head by a Slung-shot. By W. H. VAN BUREN, M. D. . . 331
6 Protrusion of Omentum after the operation of Paracentes Abdominis. 332
7 Encephaloid disease of the Lung. By THOMAS F. COCK, M. D. 334
8 Cancer of the Hand—Amputation. By W. S. BOWEN, M. D. 334
9 Case of Cancer of the Lung. By B. W. M'CREADY, M. D. 335
10 Extensive Tuberculous Disease—Peritonitis—Death. 336
11 Case of Extravasation of Blood under the Dura Mater—Paralysis—Death. By C. E. ISAACS, M. D. 337
12 Cases of Occlusio Vaginæ Complicating Labor. By Professor C. R. GILMAN, M. D. . 338

PART II.—CRITICAL ANALYSIS.

ART. VII.—On the Cryptogamous origin of Malarious and Epidemic Fevers. By J. K. MITCHELL, M. D. Professor of Practical Medicine in the Jefferson Medical College of Philadelphia. Lea and Blanchard, 1849: 12mo. pp. 137. 340

Page.

ART. VIII.—Obstetrics: The Science and the Art. By CHARLES D. MEIGS, M. D. Professor of Midwifery and the Diseases of Women and Children, in the Jefferson Medical College of Philadelphia; one of the Physicians of the Lying-in Department of the Pennsylvania Hospital, Vice-President of the Philadelphia College of Physicians, &c. &c. With one hundred and twenty-one Illustrations. Philadelphia, Lea and Blanchard, 1849: 8vo. pp. 671. 351

BIBLIOGRAPHICAL NOTICES.

ART. IX.—The Transactions of the American Medical Association, Instituted 1847. Vol. I. Published by the Association, Philadelphia, 1848. 8vo. pp. 408, (continued from page 246.) 358

ART. X.—Introductory Lectures. 364

1 Introductory Lecture to the Course of Materia Medica and Pharmacy, in the University of Pennsylvania. By GEORGE B. WOOD, M. D. Professor of Materia Medica and Pharmacy, Philadelphia, 1848. 8vo. pp. 23. 364

2 An Introductory Lecture to the Medical Class of the University of Louisville. By LUNSFORD P. YANDELL, M. D. Professor of Chemistry and Pharmacy. Louisville, 1848. 8vo. pp. 28. 372

3 A Discourse on the Influence of Disease on the Intellectual and Moral Powers. Delivered as an Introductory Lecture at the College of Physicians and Surgeons, in the City of New-York. By JOSEPH MATHER SMITH, M. D. Professor of the Theory and Practice of Physic, and Clinical Medicine. New-York. 8vo. pp. 35. . . . 373

4 New-York University Medical Department. Hygiene: An Introductory Lecture. By SAMUEL HENRY DICKSON, M. D. Professor of the Theory and Practice of Medicine. New-York, 1848. 8vo. pp. 24. 375

5 New-York University.—Medical Department. Lecture on Obstetrics, and the Diseases of Women and Children. By GUNNING S. BEDFORD, M. D. Professor of Obstetrics and the Diseases of Women and Children. New-York, 1848. 8vo. pp. 25. . . 377

6 Introductory Lecture, delivered before the Class of the Medical Department of the St. Louis University Session of 1848. By JAMES BLAKE, M. D. Professor of Special, General and Surgical Anatomy. St. Louis, 1848. 8vo. pp. 18. 378

ART XI.—Transactions of the New-York State Medical Society. Part 3, vol. 7. Albany, 1849: 8vo. pp. 76. 378

The Plea of Humanity in behalf of Medical Education. The Annual Address delivered before the New-York State Medical Society and the Members of the Legislature at the Capitol, February 6th, 1849. By ALEXANDER H. STEVENS, M. D. President of the Society, etc. etc. 378

ART. XII.—The British Record of Obstetric Medicine, Surgery, and the Diseases of Women and Children, &c. &c. To which is added, a Library of Obstetric Medical and Surgical rare Monographs, &c. Edited by CHAS. CLAY, M. D. Manchester. Licentiate of the Royal College of Physicians, London; Member of the Royal College of Surgeons, &c. Author of Peritoneal Section of Diseased Ovaria, &c. &c. With the assistance of many eminent Medical Men, British and Foreign. Illustrated with Wood Cuts and Engravings. Manchester, William Irwin, 1848. 8vo. pp. 408. . 384

Encyclopædia Obstetrica: or, A Theoretical, Practical, Historical, Biographical and Critical Dictionary of Obstetrics, including the Diseases of Women and Children. Illustrated with numerous Wood Engravings. By CHARLES CLAY, M. D. &c. &c. London, H. Renshaw; Manchester, Wm. Irwin, 1848. 8vo. pp. 32 pp. 32. Parts I. and II. 384

Page.

ART. XIII.—Clinical Midwifery, comprising the Histories of five hundred and forty-five Cases of difficult Preternatural and Complicated Labor. With Commentaries. By ROBERT LEE, M. D. F. R. S. Fellow of the Royal College of Physicians, London, Lecturer on Midwifery, &c. &c. First American, from the second London edition. Philadelphia, Lea & Blanchard, 1848. 12mo. pp. 238. 387

ART. XIV.—An Introduction to Practical Chemistry, including Analysis. By JOHN E. BOWMAN, Demonstrator of Chemistry, in King's College, London. Philadelphia, Lea and Blanchard, 1849. 12mo. pp. 303. . . 387

PART III.—FOREIGN MEDICAL RETROSPECT.

ANATOMY AND PHYSIOLOGY.

On the Changes which take place in the Lungs after division of the Pneumogastric Nerves. 388
On the Injection of Various Substances into the Veins. . . . 389
Blood Corpuscles of tho Human Embryo. 398

PATHOLOGY AND PRACTICAL MEDICINE.

Case of Hydrophobia Spontanea. 390
Case of Rheumatic Blindness. 391
Fatty Degeneration of Cartilage—Microscopical Appearances. . . 392
Sloughing of the Vagina after Measles. 393
Diseases of the Ear. 394
Congenital Closure of the Aorta at the Semilunar Valve. . . . 395
Analysis of Fluids in Cholera. 396
Treatment of Malignant Cholera. 397
Conclusions respecting the Mode of Propagation of Cholera in Russia in 1847–8. 397

SURGERY.

On the Employment of Aqua Saturini in Strangulated Hernia. . . 398
Cases of Gunshot Wounds. 399
On the Operation of Tying the Subclavian Artery internal to the Scaleni Muscles. 404
New Operation for Congenital Phymosis. 405

MIDWIFERY.

Anomilies of the Menstrual Functions in relation to Fecundation. . . 406
Cauliflower Excrescences of the Os Uteri. 406
Abscess between the Vagina and Rectum. 407
Prolapsus of the Umbilical Cord. 408
Mammary Secretion. 409
Inflammation and Abscess of the Uterine Appendages. . . . 410

MISCELLANEA.

Phellandrium Aquaticum in Phythisis and Chronic Bronchitis. . . 410
Does Calomel exert any Specific Influence on the Billiary Secretions? . 411

Page.

On Vinum Sem. Colchici Opiate in Gonorrhœa. 412
Belladonna in Eneuresis. 412
Chlorate of Potash in the Treatment of Erysipelatous Inflammation of the Mouth and Fauces. 412
Subsistence of Cholera in London. 413
Increase of the Cholera in Paris. 413
Items of Intelligence relating to the Insane. 413

PART IV.—EDITORIAL AND AMERICAN MEDICAL RETROSPECT.

EDITORIAL.

A Word to our Readers. 414
Bellevue Hospital. 415
Medical Department United States Army. 416
New-York State Medical Society. 419
Prize Essay. 419
New Orleans Medical and Surgical Journal. 419
Statistics of Medical Colleges. 420

PATHOLOGY AND PRACTICAL MEDICINE.

Laryngitis Membranecea, treated by Ammonia and Oil. . . . 420
Death from Chloroform. 421

SURGERY.

Enlarged Thyriod Gland—Death from Suffocation. 423
Observations on Psoas Abscess. 423
Fracture Tables. 424

MIDWIFERY.

Use of Anæsthetics in Midwifery. 425
Management of the Placenta. 426

MISCELLANEA.

Medical Board of Examiners, United States Army. 427

OBITUARY.

Obituary Notice of P. S. Townsend, M. D. 427
Death of Sydney B. Worth. 429
Death of Dr. James Sheffield. 429